# THE HEMIPTERIST

# A JOURNAL ON THE NATURAL HISTORY OF THE HEMIPTERA OF THE BRITISH ISLES



Volume 5 (2018)

#### THE

# **HEMIPTERIST**

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Volume 5 (2018)

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Cover photograph: *Phytocoris reuteri* Saunders (Hemiptera: Miridae).

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## AN ADDENDUM TO SAUNDERS' HEMIPTERA-HETEROPTERA OF THE BRITISH ISLANDS

#### R. P. RYAN

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There have been many changes to the nomenclature of the British Hemiptera-Heteroptera in the 125 years since Saunders (1892), which makes this text awkward to use by modern Hemiptersts. To alleviate the problem, I present below a checklist of the modern names of the British Hemiptera-Heteroptera with the corresponding names used as headings for Saunders' species accounts. The name correspondences were derived from Butler (1923) and the addendum to that work (Ryan, 2016a). Multiple correspondences due to ambiguous species names are not shown here, but are documented in Ryan (2015, 2016b & 2018).

#### ARADIDAE

Aneurus avenius (Dufour)

Aneurus laevis (Fabricius)

Aradus aterrimus Fieber

Aradus betulae (Linnaeus)

-
Aneurus laevis, Fab.

Aradus aterrimus, D. & S.

Aradus betulae (Linnaeus)
Aradus cinnamomeus Panzer

Aradus corticalis (Linnaeus)Aradus corticalis, Linn.Deleted (Butler, 1923)Aradus Lawsoni, Saund.Aradus depressus (Fabricius)Aradus depressus, Fab.

#### ACANTHOSOMATIDAE

Acanthosoma haemorrhoidale (Linnaeus)

Cyphostethus tristriatus (Fabricius)

Elasmostethus interstinctus (Linnaeus)

Elasmucha ferrugata (Fabricius)

Acanthosoma tristriatum, Linn.

Acanthosoma dentatum, De G.

Elasmucha grisea (Linnaeus) Acanthosoma interstinctum, Linn.

#### CYDNIDAE

Adomerus biguttatus (Linnaeus) Sehirus biguttatus, Linn.

Byrsinus flavicornis (Fabricius) -

Canthophorus impressus (Horváth) Sehirus dubius, Scop.

Geotomus punctulatus (A. Costa)

Legnotus limbosus (Geoffroy)

Geotomus punctulatus, Costa.

Genathoconus albomarginatus, Fab.

Gnathoconus picipes, Fall.

Sehirus luctuosus Mulsant & Rey

Tritomegas bicolor (Linnaeus)

Geotomus punctulatus, Costa.

Gnathoconus albomarginatus, Fab.

Sehirus picipes, Fall.

Sehirus morio, Linn.

Sehirus bicolor, Linn.

Tritomegas sexmaculatus (Rambur) -

#### THYREOCORIDAE

Thyreocoris scarabaeoides (Linnaeus) Corimelaena scarabaeoides, Linn.

#### SCUTELLERIDAE

Eurygaster austriaca (Schrank) Eurygaster nigra, Fab. Eurygaster maura (Linnaeus) Eurygaster maura, Linn.

Eurygaster testudinaria (Geoffroy)

Odontoscelis fuliginosa (Linnaeus) Odontoscelis fuliginosa, Linn.
Odontoscelis lineola Rambur -

#### PENTATOMIDAE

Aelia acuminata (Linnaeus) Aelia acuminata, Linn.

Carpocoris mediterraneus Tamanini

Carpocoris purpureipennis (De Geer)

Chlorochroa juniperina (Linnaeus)

Pentatoma fuscispina, Boh.

Pentatoma juniperina, Linn.

PENTATOMIDAE (CONTINUED)

Dolycoris baccarum (Linnaeus)

Dyroderes umbraculatus (Fabricius)

Eurydema dominulus (Scopoli) Eurydema oleracea (Linnaeus) Eurydema ornata (Linnaeus)

Eysarcoris aeneus (Scopoli)

Eysarcoris venustissimus (Schrank)

Jalla dumosa (Linnaeus) Neottiglossa pusilla (Gmelin) Nezara viridula (Linnaeus)

Palomena prasina (Linnaeus)
Pentatoma rufipes (Linnaeus)
Peribalus strictus (Fabricius)

Picromerus bidens (Linnaeus) Piezodorus lituratus (Fabricius) Podops inunctus (Fabricius)

Rhacognathus punctatus (Linnaeus) Rhaphigaster nebulosa (Poda)

Sciocoris cursitans (Fabricius) Troilus luridus (Fabricius) Zicrona caerulea (Linnaeus)

COREIDAE

Arenocoris fallenii (Schilling)

Arenocoris waltlii (Herrich-Schaeffer)

Bathysolen nubilus (Fallén)
Ceraleptus lividus Stein
Coreus marginatus (Linnaeus)
Coriomeris denticulatus (Scopoli)
Enoplops scapha (Fabricius)
Gonocerus acuteangulatus (Goeze)

Leptoglossus occidentalis Heidemann Spathocera dalmanii (Schilling)

Syromastus rhombeus (Linnaeus)

ALYDIDAE

Alydus calcaratus (Linnaeus)

RHOPALIDAE

Brachycarenus tigrinus (Schilling) Chorosoma schillingii (Schilling) Corizus hyoscyami (Linnaeus) Liorhyssus hyalinus (Fabricius) Myrmus miriformis (Fallén)

Myrmus miriformis (Fallén) Rhopalus maculatus (Fieber) Rhopalus parumpunctatus Schilling

Rhopalus rufus Schilling Rhopalus subrufus (Gmelin) Stictopleurus abutilon (Rossi)

Stictopleurus punctatonervosus (Goeze)

PYRRHOCORIDAE

Pyrrhocoris apterus (Linnaeus)

STENOCEPHALIDAE

Dicranocephalus agilis (Scopoli) Dicranocephalus albipes (Fabricius)

Dicranocephalus medius (Mulsant & Rey)

Pentatoma baccarum, Linn.

Strachia festiva, Linn. Strachia oleracea, Linn.

\_

Eysarcoris aeneus, Scop.

Eysarcoris melanocephalus, Fab.

Jalla dumosa, Linn.

Neottiglossa inflexa, Wolff.

\_

Pentatoma prasina, Linn. Tropicoris rufipes, Linn. Peribalus vernalis, Wolff. Picromerus bidens, Linn. Piezodorus lituratus, Fab. Podops inuncta, Fab. Asopus punctatus, Linn.

-

Sciocoris cursitans, Fab. Podisus luridus, Fab. Zicrona caerulea, Linn.

Pseudophlaeus Fallenii, Schill.

-

Bathysolen nubilus, Fall. Ceraleptus lividus, Stein. Syromastes marginatus, Lin. Coreus denticulatus, Scop. Enoplops scapha, Fab. Gonocerus venator, Fab.

\_

Spathocera Dalmanni, Schill. Verlusia rhombea, Lin.

Alydus calcaratus, Linn.

Chorosoma Schillingi, Schml. Therapha hyoscyami, Linn.

-

Myrmus miriformis, Fall. Corizus maculatus, Fieb. Corizus parumpunctatus, Schill.

-

Corizus capitatus, Fab.

-

Corizus crassicornis, Linn.

Pyrrhocoris apterus, Linn.

Stenocephalus agilis, Scop.

Stenocephalus neglectus, H. Schf.

-

#### LYGAEIDAE Acompus pallipes (Herrich-Schaeffer) Acompus rufipes (Wolff) Acompus rufipes, Wolff. Aphanus rolandri (Linnaeus) Aphanus Rolandri, Lin. Arocatus longiceps Stål Beosus maritimus (Scopoli) Beosus luscus, Fab. Chilacis typhae (Perris) Chilacis typhae, Perris. Cymus aurescens Distant Cymus claviculus (Fallén) Cymus claviculus, Fall. Cymus glandicolor Hahn Cymus glandicolor, Hahn. Cymus melanocephalus Fieber Cymus melanocephalus, Fieb. Drymus brunneus (R.F. Sahlberg) Drymus brunneus, Sahlb. Drymus latus Douglas & Scott Drymus pilicornis (Mulsant & Rey) Drymus pilicornis, Muls. Drymus pilipes Fieber Drymus pilipes, Fieb. Drymus pumilio Puton Drymus ryeii Douglas & Scott Drymus sylvaticus, Fab. var. Ryei, D. & S. Drymus sylvaticus (Fabricius) Drymus sylvaticus, Fab. Emblethis denticollis Horváth Emblethis griseus (Wolff) Emblethis verbasci, Fab. Eremocoris abietis (Linnaeus) Eremocoris fenestratus (Herrich-Schaeffer) Eremocoris fenestratus, H. Schf. Eremocoris plebeius, Fall. Eremocoris plebejus (Fallén) Eremocoris podagricus (Fabricius) Eremocoris podagricus, Fab. Gastrodes abietum Bergroth Gastrodes abietis, Linn. Gastrodes grossipes (De Geer) Gastrodes ferrugineus, Linn. Graptopeltus lynceus (Fabricius) Aphanus lynceus, Fab. Henestaris halophilus (Burmeister) Henestaris halophilus, Burm. Henestaris laticeps (Curtis) Henestaris laticeps, Curt. Heterogaster artemisiae Schilling Heterogaster artemisiae, Schill. *Heterogaster urticae* (Fabricius) Heterogaster urticae, Fab. Ischnocoris angustulus (Boheman) Ischnocoris angustulus, Boh. Ischnodemus quadratus Fieber *Ischnodemus sabuleti* (Fallén) Ischnodemus sabuleti, Fall. Kleidocerys ericae (Horváth) Ischnorhynchus geminatus, Fieb. Kleidocerys resedae (Panzer) Ischnorhynchus resedae, Panz. Lamproplax picea (Flor) Drymus piceus, Flor. Lasiosomus enervis (Herrich-Schaeffer) Lasiosomus enervis, H. Schff. Lygaeus equestris (Linnaeus) Lygaeus equestris, Linn. Lygaeus simulans Deckert Macrodema microptera (Curtis) Macrodema micropterum, Curt. Macroplax preyssleri (Fieber) Megalonotus antennatus (Schilling) Rhyparochromus antennatus, Schill. Megalonotus chiragra (Fabricius) Rhyparochromus chiragra, Fab. Megalonotus dilatatus (Herrich-Schaeffer) Rhyparochromus dilatatus, H. Schf. Megalonotus emarginatus (Rey) Megalonotus praetextatus (Herrich-Schaeffer) Rhyparochromus praetextatus. Megalonotus sabulicola (Thomson) Rhyparochromus chiragra, Fab. var. sabulicola, Thoms. *Metopoplax ditomoides* (A. Costa) Metopoplax fuscinervis Stål Notochilus limbatus Fieber Notochilus limbatus, Fieb. Nysius cymoides (Spinola) *Nysius ericae* (Schilling) Nysius graminicola (Kolenati) Nysius helveticus (Herrich-Schaeffer) Nysius lineatus, Cost. Nysius huttoni F.B. White *Nysius senecionis* (Schilling) Nysius thymi (Wolff) Nysius thymi, Wolff. Orsillus depressus (Mulsant & Rey)

Ortholomus punctipennis (Herrich-Schaeffer)

LYGAEIDAE (CONTINUED)

Pachybrachius fracticollis (Schilling)

Pachybrachius luridus Hahn

Peritrechus angusticollis (R.F. Sahlberg)

Peritrechus convivus (Stål) Peritrechus geniculatus (Hahn) Peritrechus gracilicornis Puton Peritrechus lundii (Gmelin) Peritrechus nubilus (Fallén) Pionosomus varius (Wolff) Plinthisus brevipennis (Latreille)

Pterotmetus staphyliniformis (Schilling) Raglius alboacuminatus (Goeze)

Rhyparochromus pini (Linnaeus) Rhyparochromus vulgaris (Schilling)

Scolopostethus affinis (Schilling) Scolopostethus decoratus (Hahn)

Scolopostethus grandis Horváth Scolopostethus pictus (Schilling) Scolopostethus puberulus Horváth

Scolopostethus thomsoni Reuter Sphragisticus nebulosus (Fallén) Stygnocoris fuligineus (Geoffroy)

Stygnocoris rusticus (Fallén) Stygnocoris sabulosus (Schilling)

Taphropeltus contractus (Herrich-Schaeffer)

Taphropeltus hamulatus (Thomson) Trapezonotus arenarius (Linnaeus) Trapezonotus desertus Seidenstücker

Trapezonotus dispar Stål Trapezonotus ullrichi (Fieber) Tropistethus holosericus (Scholtz) *Xanthochilus quadratus* (Fabricius)

**BERYTIDAE** 

Berytinus clavipes (Fabricius)

Berytinus crassipes (Herrich-Schaeffer)

Berytinus hirticornis (Brullé)

Berytinus minor (Herrich-Schaeffer) Berytinus montivagus (Meyer-Dür) Berytinus signoreti (Fieber)

Gampsocoris punctipes (Germar) Metatropis rufescens (Herrich-Schaeffer)

Neides tipularius (Linnaeus)

**PIESMATIDAE** 

Parapiesma quadratum (Fieber) Piesma maculatum (Laporte)

**TINGIDAE** 

Acalypta brunnea (Germar) Acalypta carinata (Panzer) Acalypta nigrina (Fallén)

Acalypta parvula (Fallén) Acalypta platycheila (Fieber) Agramma laetum (Fallén) Campylosteira verna (Fallén) Catoplatus fabricii (Stål) Corythucha ciliata (Say)

Plociomerus fracticollis, Schill. Plociomerus luridus, Hahn.

Trapezonotus distinguendus, Flor. Peritrechus geniculatus, Hahn. Peritrechus gracilicornis, Put. Peritrechus luniger, Schill. Peritrechus nubilus, Fall. Pionosomus varius, Wolff. Plinthisus brevipennis, Latr.

Aphanus pedestris, Panz. Aphanus pini, Lin.

Scolopostethus affinis, Schill. Scolopostethus decoratus, Hahn. Scolopostethus grandis, Horv. Scolopostethus pictus, Schill. Scolopostethus puberulus, Horv. Scolopostethus neglectus, Edw.

Stygnus arenarius, Hahn. Stygnus rusticus, Fall. Stygnus pedestris, Fall. Notochilus contractus, H. S.

Trapezonotus agrestis, Fall.

Trapezonotus agrestis, Fall. var. dispar, Stål.

Trapezonotus Ullrichii, Fieb. Tropistethus holosericeus, Schltz.

Aphanus quadratus, Fab.

Berytus clavipes, Fab. Berytus crassipes, H. Schf.

Berytus minor, H. Schf.

Berytus montivagus, Fieb. Berytus Signoreti, Fieb. Metacanthus punctipes, Germ. Metatropis rufescens, H. Schf.

Neides tipularius, Linn.

Piesma quadrata, Fieb. Piesma capitata, Wolff.

Orthostira brunnea, Germ. Orthostira cervina, Germ. Orthostira nigrina, Fall.

+ Orthostira macrophthalma, Fieb.

Orthostira parvula, Fall.

Serenthia laeta, Fall. Campylostira verna, Fall. Monanthia costata, Fieb.

TINGIDAE (CONTINUED)

Derephysia foliacea (Fallén)

Dictyla convergens (Herrich-Schaeffer)

Dictyonota fuliginosa A. Costa Dictyonota strichnocera Fieber Kalama tricornis (Schrank) Lasiacantha capucina (Germar)

Oncochila simplex (Herrich-Schaeffer)

Physatocheila confinis Horváth

Physatocheila dumetorum (Herrich-Schaeffer)

Physatocheila harwoodi China Physatocheila smreczynskii China Stephanitis rhododrendri Horváth Stephanitis takeyai Drake & Maa *Tingis ampliata* (Herrich-Schaeffer) *Tingis angustata* (Herrich-Schaeffer) Tingis cardui (Linnaeus)

Tingis reticulata Herrich-Schaeffer

REDUVIIDAE

Coranus aethiops Jakovlev Coranus subapterus (De Geer) Coranus woodroffei P.V. Putshkov Empicoris baerensprungi (Dohrn) Empicoris culiciformis (De Geer) Empicoris vagabundus (Linnaeus)

Oncocephalus pilicornis Reuter Pygolampis bidentata (Goeze) Reduvius personatus (Linnaeus)

Nabidae

Himacerus apterus (Fabricius) Himacerus boops (Schiødte) Himacerus major (A. Costa) Himacerus mirmicoides (O. Costa)

Nabis brevis Scholtz Nabis ericetorum Scholtz Nabis ferus (Linnaeus)

Nabis flavomarginatus Scholtz Nabis limbatus Dahlbom Nabis lineatus Dahlbom Nabis pseudoferus Remane Nabis rugosus (Linnaeus) Prostemma guttula (Fabricius)

ANTHOCORIDAE

Acompocoris alpinus Reuter Acompocoris pygmaeus (Fallén) Anthocoris amplicollis Horváth Anthocoris butleri Le Quesne Anthocoris confusus Reuter Anthocoris gallarumulmi (De Geer)

Anthocoris limbatus Fieber Anthocoris minki Dohrn

Anthocoris nemoralis (Fabricius) Anthocoris nemorum (Linnaeus) Anthocoris pilosus (Jakovlev)

Anthocoris sarothamni Douglas & Scott

Anthocoris simulans Reuter Anthocoris visci Douglas

Derephysia foliacea, Fall. Monanthia humuli, Fab. Dictyonota fuliginosa, Cost. Dictyonota strichnocera, Fieb.

Dictyonota crassicornis, Fall.

Monanthia simplex, H. Schff.

Monanthia dumetorum, H. Schff.

Monanthia quadrimaculata, Wolff.

Monanthia ampliata, Fieb. Monanthia angustata, H. Schff.

Monanthia cardui, Linn. Monanthia ciliata. Fieb.

Coranus sub-apterus, De G.

Ploiaria culiciformis, De G. Ploiaria vagabunda, Linn.

Pygolampis bidentata, Fourer. Reduvius personatus, Linn.

Nabis brevipennis, Hahn. Nabis boops, Schiödte. Nabis major, Cost. Nabis lativentris, Boh.

Nabis ericetorum, Schltz.

Nabis ferus, Linn.

Nabis flavomarginatus, Scholtz.

Nabis limbatus, Dahlb. Nabis lineatus, Dahlb.

Nabis rugosus, Linn. Prostemma guttula, Fab.

Acompocoris alpinus, Reut. Acompocoris pygmaeus, Fall.

Anthocoris confusus, Reut.

Anthocoris gallarum ulmi, De Geer.

Anthocoris nemoralis, Fabr. Anthocoris sylvestris Linn.

Anthocoris sarothamni, D. & S.

Anthocoris visci, Dougl.

ANTHOCORIDAE (CONTINUED)

Brachysteles parvicornis (A. Costa) Buchananiella continua (F.B. White)

Cardiastethus fasciiventris (Garbiglietti)

Dufouriellus ater (Dufour)

Elatophilus nigricornis (Zetterstedt) Lyctocoris campestris (Fabricius)

Orius laevigatus (Fieber)
Orius laticollis (Reuter)
Orius majusculus (Reuter)
Orius niger (Wolff)
Orius vicinus (Ribaut)

Deleted (Ryan, 2015 & 2016a)

Temnostethus gracilis Horváth

Temnostethus pusillus (Herrich-Schaeffer)

Temnostethus tibialis Reuter

Tetraphleps bicuspis (Herrich-Schaeffer)

Xylocoridea brevipennis Reuter Xylocoris cursitans (Fallén) Xylocoris formicetorum (Boheman) Xylocoris galactinus (Fieber)

**CIMICIDAE** 

Cimex columbarius Jenyns Cimex lectularius Linnaeus Cimex pipistrelli Jenyns Oeciacus hirundinis (Lamarck)

MICROPHYSIDAE

Loricula coleoptrata (Fallén) Loricula distinguenda (Reuter) Loricula elegantula (Baerensprung)

Loricula exilis (Fallén)

Loricula inconspicua (Douglas & Scott)

Loricula pselaphiformis Curtis Loricula ruficeps (Reuter)

MIRIDAE

Acetropis gimmerthalii (Flor)
Adelphocoris lineolatus (Goeze)
Adelphocoris seticornis (Fabricius)
Adelphocoris ticinensis (Meyer-Dür)
Agnocoris reclairei (Wagner)
Alloeotomus gothicus (Fallén)

Alloeotomus gothicus (Fallen)
Amblytylus brevicollis Fieber
Amblytylus delicatus (Perris)
Amblytylus nasutus (Kirschbaum)

Apolygus limbatus (Fallén) Apolygus lucorum (Meyer-Dür) Apolygus spinolae (Meyer-Dür)

Asciodema obsoleta (Fieber)

Atractotomus magnicornis (Fallén)

Atractotomus mali (Meyer-Dür) Atractotomus parvulus Reuter

Blepharidopterus angulatus (Fallén) Blepharidopterus diaphanus (Kirschbaum)

Bothynotus pilosus (Boheman) Brachyarthrum limitatum Fieber Brachynotocoris puncticornis Reuter

Bryocoris pteridis (Fallén)

Brachysteles parvicornis, Costa.

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Cardiastethus fascii-ventris, Garb.

Xylocoris ater, Duf.

*Elatophilus nigricornis*, Zett. *Lyctocoris campestris*, Fab.

-

Triphleps majusculus, Reut. Triphleps niger, Wolff.

Triphleps minutus, Linn.

\_

Temnostethus pusillus, H. Schff.

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Tetraphleps vittata, Fieb.

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Piezostethus cursitans, Fall. Piezostethus formicetorum, Boh. Piezostethus galactinus, Fieb.

Cimex columbarius, Jen. Cimex lectularius, Lin. Cimex pipistrelli, Jen. Cimex hirundinis, Jen.

Myrmedobia coleoptrata, Fall. Myrmedobia distinguenda, Reut. Microphysa elegantula, Baer. Myrmedobia tenella, Zett. Myrmedobia inconspicua, D. & S.

Microphysa pselaphiformis, Curt.

-

Acetropis Gimmerthalii, Flor Calocoris chenopodii, Fall. Calocoris seticornis, Fab. Calocoris ticinensis, Mey.

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Amblytylus brevicollis, Fieb. Amblytylus delicatus, Perr. Amblytylus affinis, Fieb. Lygus limbatus, Fall. Lygus lucorum, Mey. Lygus Spinolae, Mey.

Asciodema obsoletum, D. & S. Atractotomus magnicornis, Fall.

Atractotomus mali, Mey.

Aetorhinus angulatus, Fall. Orthotylus diaphanus, Kb. Bothynotus pilosus, Boh.

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Bryocoris pteridis, Fall.

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MIRIDAE (CONTINUED)

Calocoris alpestris (Meyer-Dür) Calocoris roseomaculatus (De Geer) Camptozygum aequale (Villers)

Campylomma annulicorne (Signoret) Campylomma verbasci (Meyer-Dür) Campyloneura virgula (Herrich-Schaeffer)

Capsodes flavomarginatus (Donovan)

Capsodes gothicus (Linnaeus) Capsodes sulcatus (Fieber) Capsus ater (Linnaeus) Capsus wagneri (Remane)

Charagochilus gyllenhalii (Fallén) Charagochilus weberi Wagner Chlamydatus evanescens (Boheman) Chlamydatus pulicarius (Fallén) Chlamydatus pullus (Reuter) Chlamydatus saltitans (Fallén)

Chlamydatus wilkinsoni (Douglas & Scott) Closterotomus fulvomaculatus (De Geer) Closterotomus norwegicus (Gmelin) Closterotomus trivialis (A. Costa)

Compsidolon salicellum (Herrich-Schaeffer)

Conostethus brevis Reuter

Conostethus griseus Douglas & Scott

Conostethus roseus (Fallén) Conostethus venustus (Fieber) Cyllecoris histrionius (Linnaeus) Cyrtorhinus caricis (Fallén) Deraeocoris flavilinea (A. Costa) Deraeocoris lutescens (Schilling) Deraeocoris olivaceus (Fabricius) Deraeocoris ruber (Linnaeus) Deraeocoris scutellaris (Fabricius) Dichrooscytus gustavi Josifov Dichrooscytus rufipennis (Fallén)

Dicyphus constrictus (Boheman) Dicyphus epilobii Reuter Dicyphus errans (Wolff) Dicyphus escalerae Lindberg Dicyphus globulifer (Fallén) Dicyphus pallicornis (Fieber)

Dicyphus annulatus (Wolff)

Dicyphus pallidus (Herrich-Schaeffer) Dicyphus stachydis J. Sahlberg

Dryophilocoris flavoquadrimaculatus (De Geer)

Europiella artemisiae (Becker) Europiella decolor (Uhler) Fieberocapsus flaveolus (Reuter) Globiceps flavomaculatus (Fabricius) Globiceps fulvicollis Jakovlev

Globiceps juniperi Reuter Grypocoris stysi (Wagner) *Hadrodemus m-flavum* (Goeze) Hallodapus montandoni Reuter *Hallodapus rufescens* (Burmeister) Halticus apterus (Linnaeus)

Halticus luteicollis (Panzer) Halticus macrocephalus Fieber Halticus saltator (Geoffroy)

Calocoris alpestris, Mey. Calocoris roseomaculatus De G.

Zygimus pinastri, Fall.

Campyloneura virgula, H. Schf. Lopus flavomarginatus, Don.

Lopus gothicus, Linn. Lopus sulcatus, Fieb. Rhopalotomus ater, Linn.

Poeciloscytus Gyllenhalii, Fall.

Plagiognathus pulicarius, Fall. var. pullus, Reut.

Plagiognathus saltitans, Fall. Plagiognathus Wilkinsoni, D. & S. Calocoris fulvomaculatus, De G. Calocoris bipunctatus, Fab.

Psallus salicellus, Meyer. Conostethus brevis, Reut. Conostethus salinus, Sahlb. Conostethus roseus, Fall.

Cyllocoris histrionicus, Linn. Cyrtorrhinus caricis, Fall.

Camptobrochis lutescens, Schill.

Capsus laniarius, Linn. Capsus scutellaris, Fab.

Dichrooscytus rufipennis, Fall. Dicyphus annulatus, Wolff. Dicyphus constrictus, Boh. Dicyphus epilobii, Reut. Dicyphus errans, Wolff.

Dicyphus globulifer, Fall. Dicyphus pallidicornis, Fieb.

Dicyphus stachydis, Reut. Cyllocoris flavonotatus, Boh. Plagiognathus albipennis, Fall.

Cyrtorrhinus flaveolus, Reut. Globiceps flavomaculatus, Fab.

Globiceps cruciatus, Reut.

Calocoris sexguttatus, Fab. Calocoris marginellus, Fab.

Allodapus rufescens, H. Schf. Halticus apterus, Linn. Halticus luteicollis, Panz.

#### MIRIDAE (CONTINUED)

Harpocera thoracica (Fallén) Heterocordylus genistae (Scopoli) Heterocordylus tibialis (Hahn) Heterotoma planicornis (Pallas) Hoplomachus thunbergii (Fallén)

Hypseloecus visci (Puton)

Leptopterna dolabrata (Linnaeus) Leptopterna ferrugata (Fallén) Liocoris tripustulatus (Fabricius)

Lopus decolor (Fallén)

Lygocoris pabulinus (Linnaeus)
Lygocoris rugicollis (Fallén)
Lygus maritimus Wagner
Lygus pratensis (Linnaeus)
Lygus punctatus (Zetterstedt)
Lygus rugulipennis Poppius
Lygus wagneri Remane

Macrolophus pygmaeus (Rambur)
Macrolophus rubi Woodroffe
Macrotylus horvathi (Reuter)
Macrotylus paykullii (Fallén)
Macrotylus solitarius (Meyer-Dür)
Malacocoris chlorizans (Panzer)
Mecomma ambulans (Fallén)
Mecomma dispar (Boheman)

Deleted (Butler (1923): a dark var of *M. dispar*)

Megacoelum beckeri (Fieber)

Megacoelum infusum (Herrich-Schaeffer) Megaloceroea recticornis (Geoffroy) Megalocoleus molliculus (Fallén) Megalocoleus tanaceti (Fallén) Miridius quadrivirgatus (A. Costa)

Miris striatus (Linnaeus)
Monalocoris filicis (Linnaeus)
Monosynamma bohemanni (Fallén)

Deleted (Butler, 1923)

Monosynamma maritimum (Wagner) Monosynamma sabulicola (Wagner) Myrmecoris gracilis (R.F. Sahlberg) Neolygus contaminatus (Fallén)

Neolygus contaminatus (Falieli)
Neolygus populi (Leston)
Neolygus viridis (Fallén)
Notostira elongata (Geoffroy)
Notostira erratica (Linnaeus)
Oncotylus viridiflavus (Goeze)
Orthocephalus coriaceus (Fabricius)
Orthocephalus saltator (Hahn)
Orthonotus rufifrons (Fallén)
Orthops basalis (A. Costa)
Orthops campestris (Linnaeus)
Orthops kalmii (Linnaeus)

Orthops kalmii (Linnaeus)
Orthotylus adenocarpi (Perris)
Orthotylus bilineatus (Fallén)
Orthotylus caprai Wagner
Orthotylus concolor (Kirschbaum)

Orthotylus ericetorum (Fallén) Orthotylus flavinervis (Kirschbaum) Orthotylus flavosparsus (C.R. Sahlberg) Orthotylus fuscescens (Kirschbaum) Harpocera thoracica, Fall. Heterocordylus genistae, Scop. Heterocordylus tibialis, Hahn. Heterotoma merioptera, Scop. Hoplomachus Thunbergii, Fall.

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Leptopterna dolobrata, Linn. Leptopterna ferrugata, Fall. Liocoris tripustulatus, Fab. Onychumenus decolor, Fall. Lygus pabulinus, Linn. Plesiocoris rugicollis, Fall.

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Lygus pratensis, Fab.

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Macrolophus nubilus, H. Sch.

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Macrotylus Paykullii, Fall. Macrotylus solitarius, Mey. Malacocoris chlorizans, Fall. Mecomma ambulans, Fall. Globiceps dispar, Boh. Globiceps ater, D. & S.

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Calocoris infusus, H. Schf.
Megaloceraea longicornis, Fall.
Macrocoleus molliculus, Fall.
Macrocoleus tanaceti, Fall.
Miridius quadrivirgatus, Costa.
Calocoris striatus, Linn.
Monalocoris filicis, Linn.
Plagiognathus bohemanni, Fall.
Plagiognathus nigritulus, Fall.

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Lygus contaminatus, Fall.

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Lygus viridis, Fall.

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Megaloceraea erratica, Linn. Oncotylus viridiflavus, Goeze. Orthocephalus mutabilis, Fall. Orthocephalus saltator, Hahn. Byrsoptera rufifrons, Fall.

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Lygus pastinacae, Fall. Lygus Kalmii, Linn. Orthotylus adenocarpi, Perr. Orthotylus bilineatus, Fall.

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Orthotylus concolor, Kb.
Orthotylus ericetorum, Fall.
Orthotylus flavinervis, Kbm.
Orthotylus flavosparsus, Sahlb.
Orthotylus fuscescens, Kb.

MIRIDAE (CONTINUED) Orthotylus junipericola Linnavuori Orthotylus marginalis Reuter Orthotylus marginalis, Reut. Orthotylus moncreaffi (Douglas & Scott) Orthotylus rubidus, Put. var. moncreaffi, D. & S. Orthotylus nassatus (Fabricius) Orthotylus nassatus, Fab. Orthotylus ochrotrichus Fieber Orthotylus ochrotrichus, D. & S. Orthotylus prasinus (Fallén) Orthotylus prasinus, Fall. Deleted (Ryan, 2016a): Orthotylus Scotti, Reut. Orthotylus rubidus (Puton) Orthotylus rubidus, Put. Orthotylus tenellus (Fallén) Orthotylus tenellus, Fall. Orthotylus virens (Fallén) Orthotylus virescens (Douglas & Scott) Orthotylus chloropterus, Kbm. Orthotylus viridinervis (Kirschbaum) Orthotylus viridinervis, Kb. Pachytomella parallela (Meyer-Dür) Pantilius tunicatus (Fabricius) Pantilius tunicatus. Fab. Parapsallus vitellinus (Scholtz) Phoenicocoris obscurellus (Fallén) Psallus obscurellus, Fall. Phylus coryli (Linnaeus) Phylus coryli, Linn. Phylus melanocephalus (Linnaeus) Phylus melanocephalus, Linn. Deleted (Ryan, 2016a): Phylus palliceps, Fieb. Phytocoris dimidiatus Kirschbaum Phytocoris dimidiatus, Kbm. Phytocoris insignis Reuter Phytocoris longipennis, Flor. Phytocoris longipennis Flor Phytocoris pini Kirschbaum Phytocoris pini, Kbm. Phytocoris populi (Linnaeus) Phytocoris populi, Linn. Phytocoris reuteri Saunders Phytocoris Reuteri, Saund. Phytocoris tiliae (Fabricius) Phytocoris tiliae, Fab. Phytocoris ulmi (Linnaeus) Phytocoris ulmi, Linn. Phytocoris varipes Boheman Phytocoris varipes, Boh. Pilophorus cinnamopterus (Kirschbaum) Pilophorus cinnamopterus, Kbm. Pilophorus clavatus (Linnaeus) Pilophorus clavatus, Linn. Pilophorus confusus (Kirschbaum) Pilophorus perplexus Douglas & Scott Pilophorus perplexus, D. & S. *Pinalitus atomarius* (Meyer-Dür) Lygus atomarius, Mey. Pinalitus cervinus (Herrich-Schaeffer) Lygus cervinus, H. Schf. Pinalitus rubricatus (Fallén) Lygus rubricatus, Fall. Pinalitus viscicola (Puton) Lygus viscicola, Put. Pithanus maerkelii (Herrich-Schaeffer) Pithanus Maerkeli, H. S. Placochilus seladonicus (Fallén) Plagiognathus arbustorum (Fabricius) Plagiognathus arbustorum, Fab. Plagiognathus chrysanthemi (Wolff) Plagiognathus viridulus, Fall. Platycranus bicolor (Douglas & Scott) Hypsitylus bicolor, D. & S. Plesiodema pinetella (Zetterstedt) Plesiodema pinetellum, Zett. Polymerus nigrita (Fallén) Poeciloscytus nigritus, Fall. Polymerus palustris (Reuter) Polymerus unifasciatus (Fabricius) Poeciloscytus unifasciatus, Fab. Polymerus vulneratus (Panzer) Psallodema fieberi (Fieber) Asciodema Fieberi, D. & S. Psallus albicinctus (Kirschbaum) Psallus albicinctus, Kbm. Psallus ambiguus (Fallén) Psallus ambiguus, Fall. Psallus assimilis Stichel Psallus betuleti (Fallén) Psallus betuleti, Fall. Psallus confusus Rieger Psallus diminutus. Kbm. Psallus falleni Reuter Psallus Fallenii, Reut. Psallus flavellus Stichel Psallus lepidus, Fieb. + var. minor. Psallus haematodes (Gmelin) Psallus sanguineus, Fab.

Psallus lepidus, Fieb.

Psallus lepidus Fieber

Psallus luridus Reuter

Psallus mollis (Mulsant & Rey) Psallus montanus Josifov

MIRIDAE (CONTINUED)

Psallus perrisi (Mulsant & Rey)
Psallus pseudoplatani Reichling

Psallus quercus (Kirschbaum)
Psallus salicis (Kirschbaum)
Psallus variabilis (Fallén)

Psallus varians (Herrich-Schaeffer)
Psallus wagneri Ossiannilsson

Pseudoloxops coccineus (Meyer-Dür)

Reuteria marqueti Puton

Rhabdomiris striatellus (Fabricius)
Salicarus roseri (Herrich-Schaeffer)
Stenodema calcarata (Fallén)
Stenodema holsata (Fabricius)
Stenodema laevigata (Linnaeus)
Stenodema trispinosa Reuter
Stenotus binotatus (Fabricius)
Sthenarus rotermundi (Scholtz)

Strongylocoris leucocephalus (Linnaeus)

Strongylocoris luridus (Fallén) Systellonotus triguttatus (Linnaeus) Teratocoris antennatus (Boheman) Teratocoris caricis Kirkaldy

Teratocoris saundersi Douglas & Scott Teratocoris viridis Douglas & Scott Tinicephalus hortulanus (Meyer-Dür) Trigonotylus caelestialium (Kirkaldy)

Trigonotylus psammaecolor Reuter

Trigonotylus ruficornis (Geoffroy)
Tropidosteptes pacificus (Van Duzee)
Tupiocoris rhododendri (Dolling)

Tuponia brevirostris Reuter
Tuponia mixticolor (A. Costa)
Tytthus pubescens (Knight)

Tytthus pygmaeus (Zetterstedt) Zygimus nigriceps (Fallén)

CERATOCOMBIDAE

Ceratocombus coleoptratus (Zetterstedt)

DIPSOCORIDAE

Cryptostemma alienum Herrich-Schaeffer

Pachycoleus waltli Fieber

SALDIDAE

Chartoscirta cincta (Herrich-Schaeffer)

Chartoscirta cocksii (Curtis)
Chartoscirta elegantula (Fallén)
Chiloxanthus pilosus (Fallén)
Halosalda lateralis (Fallén)
Macrosaldula scotica (Curtis)
Micracanthia marginalis (Fallén)

Salda littoralis (Linnaeus) Salda morio Zetterstedt Salda muelleri (Gmelin)

Saldula arenicola (Scholtz) Saldula c-album (Fieber) Saldula connemarae Walton Saldula fucicola (J. Sahlberg)

Saldula fucicola (J. Sahlberg) Saldula melanoscela (Fieber) Psallus quercus, Kbm.

Psallus alnicola, D. & S. Psallus variabilis, Fall. Psallus varians, H. Schf.

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Loxops coccineus, Mey.

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Calocoris striatellus, Fab. Plagiognathus Roseri, H. Schf.

Miris calcaratus, Fall. Miris holsatus, Fab. Miris laevigatus, Linn.

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Oncognathus binotatus, Fab.
Psallus Rotermundi, Scholtz.
Strongylocoris leucocephalus, Linn.

Strongylocoris luridus, Fall.
Systellonotus triguttatus, Linn.
Teratocoris antennatus, Boh.

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Teratocoris Saundersi, D. & S. Teratocoris viridis, D. & S. Macrocoleus hortulanus, Mey.

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Megaloceraea ruficornis, Fall.

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Cyrtorrhinus pygmaeus, Zett.

Ceratocombus coleoptratus, Zett.

Cryptostemma alienum, H. Sff.

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Salda Cocksii, Curt. Salda elegantula, Fall. Salda pilosa, Fall. Salda lateralis, Fall.

Salda cincta, H. Schff.

Salda scotica, Curt. Salda marginalis, Fall. Salda littoralis, Linn. Salda morio, Zett.

Salda morio, Zett.

Salda arenicola, Scholtz. Salda C-album, Fieb.

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SALDIDAE (CONTINUED)

Saldula opacula (Zetterstedt)Salda opacula, Zett.Saldula orthochila (Fieber)Salda orthochila, Fieb.Saldula pallipes (Fabricius)Salda pallipes, Fab.

Saldula palustris (Douglas) Salda pallipes, Fab. var. palustris, Dougl.

Saldula pilosella (Thomson)
Saldula saltatoria (Linnaeus)
Saldula setulosa (Puton)
Saldula setulosa (Puton)
Saldula setulosa (Puton)
- Saldula setulosa (Puton)

Teloleuca pellucens (Fabricius) Salda riparia, Fall.

**AEPOPHILIDAE** 

Aepophilus bonnairei Signoret Aëpophilus Bonnairei, Sign.

MESOVELIIDAE

Mesovelia furcata Mulsant & Rey Mesovelia furcata, Muls. & Rey.

HEBRIDAE

Hebrus pusillus (Fallén)Hebrus pusillus, Fall.Hebrus ruficeps ThomsonHebrus ruficeps, Thoms.

HYDROMETRIDAE

Hydrometra gracilenta Horváth -

Hydrometra stagnorum (Linnaeus) Hydrometra stagnorum, Linn.

VELIIDAE

Microvelia buenoi Drake -

Microvelia pygmaea (Dufour) Microvelia pygmaea, Duf.
Microvelia reticulata (Burmeister) -

Velia caprai Tamanini Velia currens, Fab.

Velia saulii Tamanini

GERRIDAE

Aquarius najas (De Geer) Gerris najas, De G. Aquarius paludum (Fabricius) Gerris paludum, Fab. Gerris argentatus Schummel Gerris argentata, Schum. Gerris costae (Herrich-Schaeffer) Gerris Costae, H. Schff. Gerris gibbifer Schummel Gerris gibbifera, Schum. Gerris lacustris (Linnaeus) Gerris lacustris, Linn. Gerris lateralis Schummel Gerris aspera, Fieb. Gerris odontogaster, Zett. *Gerris odontogaster* (Zetterstedt) Gerris thoracicus Schummel Gerris thoracica, Schum.

Limnoporus rufoscutellatus (Latreille)

NEPIDAE

Nepa cinerea Linnaeus Nepa cinerea, Linn.
Ranatra linearis (Linnaeus) Ranatra linearis, Linn.

NAUCORIDAE

Ilyocoris cimicoides (Linnaeus) Naucoris cimicoides, Linn.

Naucoris maculatus Fabricius

APHELOCHEIRIDAE

Aphelocheirus aestivalis (Fabricius) Aphelochirus aestivalis, Fab.

NOTONECTIDAE

Notonecta glauca Linnaeus Notonecta glauca, Linn.

Notonecta maculata Fabricius Notonecta glauca, Linn. var. maculata, Fab. Notonecta obliqua Thunberg Notonecta glauca, Linn. var. furcata.

*Gerris rufoscutellata*, Latr.

Notonecta viridis Delcourt

**PLEIDAE** 

Plea minutissima Leach Plea minutissima, Fab.

CORIXIDAE

Arctocorisa carinata (C.R. Sahlberg) Corixa carinata, Sahlb.

Arctocorisa germari (Fieber)

Callicorixa praeusta (Fieber)Corixa praeusta, Fieb.Deleted (Ryan, 2016a):Corixa sodalis, D. & S.Deleted (Ryan, 2016a):Corixa Boldi, D. & S.

Callicorixa wollastoni (Douglas & Scott) Corixa praeusta, Fieb. var. Wollastoni D. & S.

Deleted (Ryan, 2016a & Butler, 1923): Corixa affinis Leach Corixa atomaria, Illig.

Corixa dentipes Thomson Corixa iberica Jansson Corixa panzeri Fieber -

Corixa punctata (Illiger) Corixa Geoffroyi, Leach. Cymatia bonsdorffii (C.R. Sahlberg) Corixa Bonsdorffii, Sahlb. Cymatia coleoptrata (Fabricius) Corixa coleoptrata, Fab.

Cymatia rogenhoferi (Fieber)

Glaenocorisa cavifrons (Thomson) Corixa cavifrons, Thoms.

Glaenocorisa propinqua (Fieber) --Hesperocorixa castanea (Thomson) --

Hesperocorixa linnaei (Fieber)Corixa Linnaei, Fieb.Hesperocorixa moesta (Fieber)Corixa moesta, Fieb.Hesperocorixa sahlbergi (Fieber)Corixa Sahlbergi, Fieb.

Micronecta griseola Horváth

Micronecta minutissima (Linnaeus) Sigara minutissima, Linn.

Micronecta poweri (Douglas & Scott)

Micronecta scholtzi (Fieber)Sigara Scholtzii, Fieb.Paracorixa concinna (Fieber)Corixa concinna, D. & S.Sigara distincta (Fieber)Corixa distincta, Fieb.

Sigara dorsalis (Leach)

Sigara falleni (Fieber) Corixa Fallenii, Fieb.

Sigara fallenoidea (Hungerford)

Sigara fossarum (Leach) Corixa fossarum, Leach.

Deleted (Butler (1923): a var. of S. fossarum) Corixa prominula, Thoms.

Sigara iactans Jansson -

Sigara lateralis (Leach) Corixa hieroglyphica, Duf. Sigara limitata (Fieber) Corixa limitata, Fieb.

Sigara longipalis (J. Sahlberg)

Sigara nigrolineata (Fieber) Corixa Fabricii, Fieb. Sigara scotti (Douglas & Scott) Corixa Scotti, Fieb.

Sigara selecta (Fieber)

Sigara semistriata (Fieber)Corixa semistriata, Fieb.Sigara stagnalis (Leach)Corixa lugubris, Fieb.Sigara striata (Linnaeus)Corixa striata, Fieb.Sigara venusta (Douglas & Scott)Corixa venusta, D. & S.

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# SOME OLD RECORDS FOR *BUCHANANIELLA CONTINUA* (F.B. WHITE) (HEMIPTERA: ANTHOCORIDAE) IN OXFORD AND A NEW ONE FOR SUSSEX

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The first British record for this species was from the garden of Buckingham Palace, Middlesex in 1995 (Kirby, 1999). The county distribution of the Hemiptera-Heteroptera of the British Isles (Ryan, 2014a & 2014b) lists 14 additional counties from which this animal has been recorded, ranging from Surrey in the south-east to Yorkshire in the north and Devon in the west. Since then, four more counties have been added to the list, filling in some of the gaps in the known distribution (Ryan, 2014c, 2016a, 2016b & 2017). One of these is Oxfordshire, based upon specimens taken in two localities in Oxford in 2013 & 2014. However, I have since found additional Oxford specimens in my collection standing amongst *Cardiastethus fasciiventris* (Garbiglietti) (Anthocoridae), the labels for these providing the following records.

- 16 August 2006, beating conifers and oak, University Parks, Oxford, Oxfordshire (National Grid Reference SP516073), one specimen.
- 5 September 2007, beating Lawson Cypress, University Parks, Oxford, Oxfordshire (SP513071), two specimens.

This means that *B. continua* was present in Oxford for at least seven years prior to my realising it was here. My records for Oxford do not go further back than this as 2006 was the first year that I collected seriously in the area.

This is not the first time the bug has been found amongst *C. fasciiventris* in a collection (Alexander, 2009), and it will be interesting to see if any more old specimens turn up, and whether the arrival of this species in Britain can be shown to be significantly earlier than 1995.

I am also able to report a twentieth county for the bug, Sussex. Two specimens were taken on 15 August 2016 sweeping the shoreline at Bosham (SU804033).

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## AN ANNOTATED CHECKLIST OF THE AMBIGUOUS SPECIES NAMES OF HEMIPTERA-HETEROPTERA FROM SAUNDERS (1892) TO BUTLER (1923)

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This article is a prequel to Ryan (2015 & 2016), which listed the ambiguous species names of the British Hemiptera-Heteroptera following Butler (1923). The present article lists the additional ambiguous species names that arose in the period prior to the publication of this work, and after Saunders (1892), and thereby assists in the interpretation of records published at this time. As stated previously, the significance of ambiguous species names is that once it is discovered that two distinct species have been recorded under the same name, all previous records must be discounted, unless they are supported by authenticated specimens. The additional ambiguous species names are as follows.

#### **A**RADIDAE

Aneurus laevis, Fab.

Bergroth (1915) reported that the above name had been applied to two distinct species, and that it was the new species *Aneurus avenius* (Dufour) that was the more common in England.

#### **ACANTHOSOMATIDAE**

Acanthosoma interstinctum, Linn.

This name in Saunders (1892) does not refer to the *Acanthosoma interstinctum*, L. of Butler (1923) (*Elasmostethus interstinctus* (Linnaeus) of today), but to *Elasmostethus griseus* L. (*Elasmucha grisea* (Linnaeus) of today). It is the *Acanthosoma dentatum*, De G. of Saunders that corresponds to *A. interstinctum* (*E. interstinctus*). There is clearly the potential for confusion with the use of Saunders (1892) for these insects, and I have found one clear example of this in the literature (Heslop-Harrion, 1958).

#### **SCUTELLERIDAE**

Odontoscelis fuliginosa, Linn.

When *Odontoscelis lineola* Rambur (*Odontoscelis dorsalis* Fabr. of Butler) was added to the British list (Bedwell, 1909) one specimen of it was found in a collection standing over the above name, and another was reported taken in 1888.

#### STENOCEPHALIDAE

Stenocephalus agilis, Scop.

When *Dicranocephalus medius* (Mulsant & Rey) was added to the British list by Butler (1911) the author commented that the species 'has long existed in our collections' standing over the above name, and gave a number of records for it from the specimens of several collectors.

#### LYGAEIDAE

Drymus pilicornis, Muls.

At the time of Saunders (1892), the above and *Drymus latus* Douglas & Scott were thought to be synonyms for the same species, Saunders using the above name. However, Butler (1904) showed that they were separate species, and found examples of both in collections.

#### **MIRIDAE**

Plagiognathus pulicarius, Fall.

Chlamydatus pullus (Reuter) is described in Butler (1923) and occurs in Saunders (1892) as *Plagiognathus pulicarius*, Fall. var. *pullus*, Reut. The genuine species corresponding to the above name, *Chlamydatus pulicarius* (Fallén), was not recognised as British until Campbell (1959), based upon a museum specimen collected in 1913. Saunders comments that all

specimens he has seen are var. *pullus*. Old records for the above name should not therefore be regarded as *C. pulicarius* unless traced to an authenticated specimen.

#### VELIIDAE

Microvelia pygmaea, Duf.

The above name refers to the *Microvelia reticulata* Burm. of Butler (1923) and not necessarily to the *Microvelia pygmaea* (Dufour) of today, which was added to the British list by Walton (1939).

#### CORIXIDAE

Corixa carinata, Sahlb.

The *Corixa intricata* and *Corixa Sharpi* of Douglas & Scott (1865) were described together under the above name by Saunders (1892), but separated again by Butler (1923), on the authority of Kirkaldy (1898). The species are now known as *Arctocorisa germari* (Fieber) and *Arctocorisa carinata* (C.R. Sahlberg), respectively. Clearly, as suggested by Butler, the use of the above name by Saunders is ambiguous.

Corixa atomaria, Illig. & Corixa affinis Leach

Butler (1923) points out that both *Corixa affinis* Leach and *Corixa panzeri* Fieber are referred to by the single name *Corixa atomaria* in Saunders (1892), and subsequently by the single name *Corixa affinis*, whereas they were previously given separate names. The above names are therefore ambiguous for the period between Saunders' and Butler's texts, and subsequently in the hands of anyone not aware of the confusion reported by Butler.

Corixa lugubris, Fieb.

The species *Corixa lugubris*, Fieb. and *Corixa Stali*, Fieb. of Douglas & Scott (1865) were described under the above single name by Saunders (1892), but separated again by Butler (1923). The two species now go by the names *Sigara stagnalis* (Leach) and *Sigara selecta* (Fieber), respectively. Clearly, there is the possibility that the use of the above name might refer to either of the aforementioned species, as suggested by Butler.

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR LANCASHIRE & ISLE OF MAN INTO VICE-COUNTY LISTS FOR VC59, VC60 AND VC71

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#### Introduction

The list of Hemiptera-Heteroptera for Lancashire & Isle of Man in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the three constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian South Lancashire (VC59), Watsonian West Lancashire (VC60) and Isle of Man (VC71).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a & 2018b). The resulting vice-county lists include 425 records, compared with 282 for the original Lancashire & Isle of Man list. The list for Lancashire & Isle of Man as a whole has shortened by 38, the decrease arising from two species added to the list and 40 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the three vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Lancashire & Isle of Man are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking some of the records relate to the references from which they were derived, as indicated in Table 1. The unmarked records are from Judd (2009 & 2010).

#### The divided records

Aradidae			
Aradus depressus (Fabricius)	VC59	-	-
ACANTHOSOMATIDAE			
Acanthosoma haemorrhoidale (Linnaeus)	VC59	VC60	-
Cyphostethus tristriatus (Fabricius)	VC59	VC60	-
Elasmostethus interstinctus (Linnaeus)	VC59	VC60	_
Elasmucha grisea (Linnaeus)	VC59	VC60	-
CYDNIDAE			
Sehirus luctuosus Mulsant & Rey	VC59	-	-
THYREOCORIDAE			
Thyreocoris scarabaeoides (Linnaeus)	VC59	-	-
PENTATOMIDAE			
Aelia acuminata (Linnaeus)	VC59	VC60	-
Chlorochroa juniperina (Linnaeus)	VC59	-	-
Dolycoris baccarum (Linnaeus)	-	VC60	VC71 (8)
Palomena prasina (Linnaeus)	VC59	VC60	_
Pentatoma rufipes (Linnaeus)	VC59	VC60	-
Picromerus bidens (Linnaeus)	VC59	VC60	-
Piezodorus lituratus (Fabricius)	VC59	VC60	VC71 (8)
Rhacognathus punctatus (Linnaeus)	VC59	VC60	-
Troilus luridus (Fabricius)	VC59	VC60	-

PENTATOMIDAE (CONTINUED)  Zicrona caerulea (Linnaeus)	VC59	VC60	-
CORFIDAT			
COREIDAE  Coriomaria denticulatus (Scopoli)		VC60	
Coriomeris denticulatus (Scopoli) Leptoglossus occidentalis Heidemann	-	VC60 VC60	-
Lepiogiossus occidentatis Heidemann	-	V C00	-
RHOPALIDAE			
Chorosoma schillingii (Schilling)	VC59	VC60	-
Corizus hyoscyami (Linnaeus)	VC59	-	-
Myrmus miriformis (Fallén)	VC59	VC60	-
Rhopalus subrufus (Gmelin)	-	VC60	-
STENOCEPHALIDAE			
Dicranocephalus agilis (Scopoli) [DELETED]	_	_	_
Dieranocephanas aginis (scopon) [BEBETBB]			
Lygaeidae			
Acompus pallipes (Herrich-Schaeffer) [DELETED]	-	-	-
Chilacis typhae (Perris)	VC59	VC60	-
Cymus claviculus (Fallén)	VC59	-	-
Cymus glandicolor Hahn	VC59	VC60	-
Drymus brunneus (R.F. Sahlberg)	VC59	VC60	-
Drymus ryeii Douglas & Scott	-	VC60	-
Drymus sylvaticus (Fabricius)	VC59	VC60	-
Gastrodes grossipes (De Geer)	VC59	VC60	-
Graptopeltus lynceus (Fabricius)	VC59	VC60	-
Heterogaster urticae (Fabricius)	VC59	VC60	-
Ischnodemus sabuleti (Fallén)	VC59	VC60	-
Kleidocerys ericae (Horváth)	VC59	VC60	-
Kleidocerys resedae (Panzer)	VC59	VC60	-
Lamproplax picea (Flor)	-	VC60	-
Macrodema microptera (Curtis)	-	VC60	-
Megalonotus chiragra (Fabricius)	VC59	VC60	-
Nysius ericae (Schilling)	VC59 (5)	-	-
Nysius thymi (Wolff)	VC59	VC60	-
Peritrechus geniculatus (Hahn)	VC59	-	-
Peritrechus lundii (Gmelin)	VC59	VC60	-
Plinthisus brevipennis (Latreille)	VC59	VC60	-
Scolopostethus affinis (Schilling)	VC59	VC60	-
Scolopostethus decoratus (Hahn)	VC59	VC60	VC71 (8)
Scolopostethus thomsoni Reuter	VC59	VC60	-
Stygnocoris fuligineus (Geoffroy)	VC59	VC60	VC71 (8)
Stygnocoris rusticus (Fallén)	VC59	-	VC71 (10)
Stygnocoris sabulosus (Schilling)	VC59	VC60	VC71 (8)
Taphropeltus contractus (Herrich-Schaeffer) [DELETED]	-	-	-
Trapezonotus arenarius (Linnaeus)	VC59	VC60	-
Trapezonotus desertus Seidenstücker	VC59	VC60	-
BERYTIDAE			
Berytinus crassipes (Herrich-Schaeffer)	VC59	_	-
Berytinus minor (Herrich-Schaeffer)	VC59	VC60	-
Berytinus montivagus (Meyer-Dür)	_	VC60	-
Gampsocoris punctipes (Germar)	VC59	VC60	-
Neides tipularius (Linnaeus)	VC59	VC60	-
-			

PIESMATIDAE  Parapiesma quadratum (Fieber)	_	VC60	VC71 (8)
TINGIDAE			(-)
		VC60	
Acalypta nigrina (Fallén)	- NG50		- VC71 (0)
Acalypta parvula (Fallén)	VC59	VC60	VC71 (8)
Agramma laetum (Fallén)	VC59	VC60	-
Derephysia foliacea (Fallén)	-	VC60	-
Dictyla convergens (Herrich-Schaeffer)	-	VC60	-
Dictyonota strichnocera Fieber	VC59	-	-
Physatocheila dumetorum (Herrich-Schaeffer)	-	VC60	-
Tingis ampliata (Herrich-Schaeffer)	-	VC60	-
Tingis cardui (Linnaeus)	VC59	VC60	VC71 (8)
REDUVIIDAE			
Coranus subapterus (De Geer) [DELETED]	-	-	-
Empicoris culiciformis (De Geer) [DELETED]	-	-	-
Empicoris vagabundus (Linnaeus)	VC59 (7)	VC60	-
Reduvius personatus (Linnaeus)	VC59	-	-
Nabidae			
Himacerus apterus (Fabricius)	_	VC60	_
Himacerus major (A. Costa)	VC59	VC60	_
Nabis ericetorum Scholtz	VC59	VC60	_
Nabis ferus (Linnaeus)	VC59	VC60	VC71 (8)
Nabis flavomarginatus Scholtz	VC59	VC60	-
Nabis limbatus Dahlbom	VC59	VC60	_
Nabis rugosus (Linnaeus)	VC59	VC60	VC71 (8)
Prostemma guttula (Fabricius) [DELETED]	VC39 -	• C00	VC/1(0)
Trostemma gamaa (Taoricias) [DEEDTED]			
Anthocoridae			
Acompocoris alpinus Reuter	-	VC60	-
Acompocoris pygmaeus (Fallén)	VC59	-	-
Anthocoris confusus Reuter	VC59	VC60	-
Anthocoris gallarumulmi (De Geer) [DELETED]	-	-	-
Anthocoris nemoralis (Fabricius)	VC59	VC60	VC71 (8)
Anthocoris nemorum (Linnaeus)	VC59	VC60	VC71 (8)
Anthocoris sarothamni Douglas & Scott [NEW]	_	-	VC71 (8)
Elatophilus nigricornis (Zetterstedt)	_	VC60	-
Lyctocoris campestris (Fabricius)	VC59	_	_
Orius majusculus (Reuter)	VC59	_	_
Orius vicinus (Ribaut)	VC59 (7)	_	_
Temnostethus gracilis Horváth	-	VC60	_
Xylocoris cursitans (Fallén) [DELETED]		-	_
Xylocoris galactinus (Fieber)	VC59	_	_
Aylocorts galactinus (11coct)	<b>V</b> C37	_	_
CIMICIDAE  Cim on located arius Linnocone [DELETED]			
Cimex lectularius Linnaeus [DELETED]	-	-	-
MICROPHYSIDAE			
Loricula elegantula (Baerensprung)	VC59	VC60	-
Loricula pselaphiformis Curtis	VC59 (6)	-	-
MIRIDAE			
Adelphocoris lineolatus (Goeze)	VC59	VC60	-

MIDIDAE (CONTINUED)			
MIRIDAE (CONTINUED) Alloeotomus gothicus (Fallén)		VC60	
Antoeonomus goimeus (Fallell) Amblytylus brevicollis Fieber [DELETED]	-	V C00	-
Amotytytus brevicotus Fledel [BELETED]  Apolygus lucorum (Meyer-Dür)	VC59	VC60	-
Apolygus spinolae (Meyer-Dür)	VC59	<b>V</b> C00	-
Asciodema obsoleta (Fieber)	VC59 (5)	-	_
Blepharidopterus angulatus (Fallén)	VC59	_	VC71 (8)
Blepharidopterus diaphanus (Kirschbaum)	VC59 (5)	-	VC/1 (6)
Bryocoris pteridis (Fallén)	VC59 (3)	VC60	-
Calocoris alpestris (Meyer-Dür)	VC59	VC60	-
Calocoris roseomaculatus (De Geer)	VC59	<b>V</b> C00	-
Camptozygum aequale (Villers)	VC59	-	-
Campyloneura virgula (Herrich-Schaeffer)	VC59	VC60	-
Capsus ater (Linnaeus)	VC59	VC60	-
Capsus are (Elimacus) Chlamydatus pullus (Reuter) [DELETED]	V C 3 9	<b>V</b> C00	-
Chlamydatus saltitans (Fallén)	VC59 (5)	-	-
Closterotomus fulvomaculatus (De Geer) [DELETED]	VC39 (3)	-	-
Closterotomus norwegicus (Gmelin)	- VC59	-	-
Compsidolon salicellum (Herrich-Schaeffer) [DELETED]	VC39	-	-
	-	-	-
Conostethus griseus Douglas & Scott [DELETED] Conostethus roseus (Fallén) [DELETED]	-	-	-
Cyllecoris histrionius (Linnaeus)	VC59	VC60	-
	VC59 VC59	V C00	-
Cyrtorhinus caricis (Fallén)	VC59 VC59	VC60 (13)	-
Deraeocoris flavilinea (A. Costa)	VC59 VC59	VC60 (13)	-
Deraeocoris lutescens (Schilling)	VC59 VC59	VC60 VC60	-
Deraeocoris ruber (Linnaeus)	VC39	V C00	-
Dichrooscytus rufipennis (Fallén) [DELETED]	- VC59	- VC60	-
Dicyphus annulatus (Wolff)	VC39	V COU	-
Dicyphus constrictus (Boheman) [DELETED]	- VC59	- VC60	-
Dicyphus epilobii Reuter	VC59 VC59	VC60 VC60	-
Dicyphus errans (Wolff)	VC59 VC59	v Coo	-
Dicyphus globulifer (Fallén)		- VC60	-
Dicyphus pallicornis (Fieber)	VC59	VC60 VC60	-
Dicyphus stachydis J. Sahlberg	VC59		-
Dryophilocoris flavoquadrimaculatus (De Geer)	VC39	VC60	-
Europiella artemisiae (Becker) [DELETED]	-	-	-
Globiceps flavomaculatus (Fabricius) [DELETED]	- VC59	- VC60	-
Globiceps fulvicollis Jakovlev	VC59 VC59	VC60 VC60	VC71 (11)
Grypocoris stysi (Wagner)	VC39	v Coo	VC/1 (11)
Halticus saltator (Geoffroy) [DELETED]	- VC50	- VC60	-
Harpocera thoracica (Fallén)	VC59	VC60 VC60	-
Heterocordylus genistae (Scopoli)	- VC50	V C00	-
Heterocordylus tibialis (Hahn)	VC59	- V/C(0	-
Heterotoma planicornis (Pallas)	VC59	VC60	-
Leptopterna dolabrata (Linnaeus)	VC59	VC60	-
Leptopterna ferrugata (Fallén)	VC59	- V/C60	-
Liocoris tripustulatus (Fabricius)	VC59	VC60	-
Lopus decolor (Fallén)	VC59	- V/C60	- VC71 (9)
Lygocoris pabulinus (Linnaeus)	VC59	VC60	VC71 (8)
Lygocoris rugicollis (Fallén)	VC59	-	-
Lygus maritimus Wagner	VC59	- VC60	-
Lygus rugulipennis Poppius  Magnaloghus magnagus (Rombur) [DELETED]	VC59	VC60	-
Macrolophus pygmaeus (Rambur) [DELETED]	- NG50	- V/C/C0	-
Macrotylus paykullii (Fallén)	VC59	VC60	-
Malacocoris chlorizans (Panzer) [DELETED]	-	-	-

MIDIDAE (CONTINUED)			
MIRIDAE (CONTINUED)  Mecomma ambulans (Fallén)	VC59	VC60	VC71 (8)
Mecomma dispar (Boheman)	VC59 (5)	V C 0 0	VC/1 (8)
Megacoelum infusum (Herrich-Schaeffer)	V C39 (3)	- VC60	-
Miris striatus (Linnaeus)	_	VC60	_
Monalocoris filicis (Linnaeus)	VC59	VC60	VC71 (8)
Monosynamma sabulicola (Wagner)	VC59	VC60	-
Neolygus contaminatus (Fallén)	VC59	VC60	_
Neolygus viridis (Fallén)	VC59	VC60	_
Notostira elongata (Geoffroy)	VC59	-	VC71 (8)
Orthocephalus coriaceus (Fabricius) [DELETED]	-	_	-
Orthocephalus saltator (Hahn) [DELETED]	_	_	_
Orthops campestris (Linnaeus)	VC59	VC60	_
Orthotylus ericetorum (Fallén)	VC59	-	_
Orthotylus flavinervis (Kirschbaum)	VC59	_	_
Orthotylus flavosparsus (C.R. Sahlberg)	VC59	_	-
Orthotylus marginalis Reuter	VC59	_	-
Orthotylus ochrotrichus Fieber	VC59 (5)	-	-
Orthotylus tenellus (Fallén)	VC59 (5)	-	-
Orthotylus virescens (Douglas & Scott)	VC59	-	-
Pantilius tunicatus (Fabricius)	VC59	VC60	-
Phoenicocoris obscurellus (Fallén)	VC59	-	-
Phylus coryli (Linnaeus)	-	VC60	-
Phylus melanocephalus (Linnaeus)	VC59 (5)	VC60	-
Phytocoris dimidiatus Kirschbaum	VC59	-	-
Phytocoris longipennis Flor	VC59	VC60	-
Phytocoris pini Kirschbaum	-	VC60	-
Phytocoris populi (Linnaeus)	VC59	VC60	-
Phytocoris reuteri Saunders	VC59	VC60	-
Phytocoris tiliae (Fabricius)	VC59	VC60	-
Phytocoris ulmi (Linnaeus)	VC59	VC60	-
Phytocoris varipes Boheman	VC59	VC60	-
Pilophorus cinnamopterus (Kirschbaum)	-	VC60	-
Pilophorus clavatus (Linnaeus)	VC59	-	-
Pilophorus perplexus Douglas & Scott [DELETED]	_	-	-
Pinalitus cervinus (Herrich-Schaeffer)	VC59	VC60	VC71 (8)
Pithanus maerkelii (Herrich-Schaeffer)	VC59	VC60	-
Plagiognathus arbustorum (Fabricius)	VC59	VC60	-
Plagiognathus chrysanthemi (Wolff)	VC59	-	-
Platycranus bicolor (Douglas & Scott)	VC59	-	-
Plesiodema pinetella (Zetterstedt)	VC59	-	-
Polymerus nigrita (Fallén)	VC59	VC60	-
Polymerus palustris (Reuter)	VC59	VC60	-
Polymerus unifasciatus (Fabricius) [DELETED]	- NG50	- V/C(0	-
Psallus ambiguus (Fallén)	VC59	VC60	-
Psallus confusus Rieger [DELETED]	- V/C50	-	-
Psallus falleni Reuter	VC59	- V/C60	-
Psallus haematodes (Gmelin)	VC59	VC60	-
Psallus mollis (Mulsant & Rey) [DELETED] Psallus salicis (Kirschbaum) [DELETED]	-	-	-
Psallus varians (Herrich-Schaeffer)	VC59	- VC60	-
Pseudoloxops coccineus (Meyer-Dür)	v CJ3	VC60	_
Rhabdomiris striatellus (Fabricius)	VC59	VC60	_
Salicarus roseri (Herrich-Schaeffer) [DELETED]	-	-	_
Stenodema calcarata (Fallén)	VC59	VC60	VC71 (8)
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MIRIDAE (CONTINUED)			
Stenodema holsata (Fabricius)	VC59	_	_
Stenodema laevigata (Linnaeus)	VC59	VC60	VC71 (8)
Stenotus binotatus (Fabricius)	VC59	-	-
Sthenarus rotermundi (Scholtz)	VC59	_	_
Systellonotus triguttatus (Linnaeus)	VC59	_	_
Teratocoris saundersi Douglas & Scott [DELETED]	-	_	_
Teratocoris viridis Douglas & Scott [DELETED]	_	_	_
Tinicephalus hortulanus (Meyer-Dür) [DELETED]	_	_	_
Trigonotylus psammaecolor Reuter	VC59	_	_
Trigonotylus ruficornis (Geoffroy)	VC59	VC60	_
Tytthus pygmaeus (Zetterstedt)	VC59	V C00	_
1 yunus pygmaeus (Zettersteat)	V C 3 9	-	-
CERATOCOMBIDAE			
Ceratocombus coleoptratus (Zetterstedt)	VC59	-	-
DIPSOCORIDAE		11000	
Cryptostemma alienum Herrich-Schaeffer	-	VC60	-
SALDIDAE			
Chartoscirta cincta (Herrich-Schaeffer)	VC59	VC60	_
Chartoscirta cocksii (Curtis) [DELETED]	-	-	_
Chartoscirta elegantula (Fallén)	_	VC60	_
Chiloxanthus pilosus (Fallén)	_	VC60	
Halosalda lateralis (Fallén)	_	VC60	_
· · · · · ·	-	VC60 VC60	-
Macrosaldula scotica (Curtis)	- V/C50		-
Salda littoralis (Linnaeus)	VC59	VC60	-
Salda morio Zetterstedt [DELETED]	-	-	-
Salda muelleri (Gmelin)	-	VC60	-
Saldula c-album (Fieber)	-	VC60	-
Saldula orthochila (Fieber)	VC59	-	-
Saldula pallipes (Fabricius) [DELETED]	-	-	-
Saldula palustris (Douglas)	-	VC60	-
Saldula pilosella (Thomson) [DELETED]	-	-	-
Saldula saltatoria (Linnaeus)	VC59	VC60	VC71 (8)
A EDODUH ID A E			
AEPOPHILIDAE  Aepophilus bonnairei Signoret	_		VC71 (2)
Aepophilus vonnairei Signorei	-	-	VC/1 (2)
HEBRIDAE			
Hebrus ruficeps Thomson	-	-	VC71 (3)
HYDROMETRIDAE			
Hydrometra stagnorum (Linnaeus)	VC59	VC60	VC71 (3)
Verynous			
VELIIDAE	MOTO		V(071 (1)
Microvelia reticulata (Burmeister)	VC59	-	VC71 (1)
Velia caprai Tamanini	VC59	VC60	VC71 (3)
Velia saulii Tamanini	-	VC60 (3)	-
GERRIDAE			
Aquarius najas (De Geer)	_	_	VC71 (3)
Gerris argentatus Schummel [DELETED]	_	_	-
Gerris costae (Herrich-Schaeffer)	VC59	_	_
Gerris costae (Heffich-Schaeffer) Gerris gibbifer Schummel	VC59 VC59	_	VC71 (3)
Gerris givoger Schalliner	v C33	-	v C/1 (3)

GERRIDAE (CONTINUED)			
Gerris lacustris (Linnaeus)	VC59	VC60	VC71 (3)
Gerris lateralis Schummel	VC59	-	-
Gerris odontogaster (Zetterstedt)	VC59	VC60	VC71 (12)
Gerris thoracicus Schummel	VC59	VC60	VC71 (3)
Name of			
NEPIDAE	MOSO	MOCO	V(C71 (1)
Nepa cinerea Linnaeus	VC59	VC60	VC71 (1)
Ranatra linearis (Linnaeus)	VC59	-	-
NAUCORIDAE			
Ilyocoris cimicoides (Linnaeus)	VC59	VC60	_
NOTONECTIDAE			
Notonecta glauca Linnaeus	VC59	VC60	VC71 (3)
Notonecta maculata Fabricius	VC59	-	-
Notonecta obliqua Thunberg	VC59	-	-
Notonecta viridis Delcourt	VC59	VC60	VC71 (3)
PLEIDAE			
Plea minutissima Leach	VC59	VC60	VC71 (1)
CORIXIDAE			
Arctocorisa carinata (C.R. Sahlberg) [NEW]	VC59 (9)	_	_
Arctocorisa germari (Fieber)	VC59	VC60	VC71 (3)
Callicorixa praeusta (Fieber)	VC59	VC60	VC71 (3)
Callicorixa wollastoni (Douglas & Scott)	VC59	-	-
Corixa dentipes Thomson	VC59	_	_
Corixa panzeri Fieber	VC59	VC60	VC71 (3)
Corixa punctata (Illiger)	VC59	VC60	VC71 (3)
Cymatia bonsdorffii (C.R. Sahlberg)	VC59	-	-
Glaenocorisa cavifrons (Thomson)	VC59 (4)	_	_
Hesperocorixa castanea (Thomson)	-	_	VC71 (3)
Hesperocorixa linnaei (Fieber)	VC59	VC60	-
Hesperocorixa moesta (Fieber)	VC59	-	VC71 (10)
Hesperocorixa sahlbergi (Fieber)	VC59	VC60	VC71 (10)
Micronecta poweri (Douglas & Scott) [DELETED]	-	-	· · · · · · · · · · · · · · · · · · ·
Paracorixa concinna (Fieber)	VC59	VC60	VC71 (3)
Sigara distincta (Fieber)	VC59	VC60	VC71 (3)
Sigara dorsalis (Leach)	VC59	VC60	VC71 (3)
Sigara falleni (Fieber)	VC59	VC60	VC71 (3)
Sigara fossarum (Leach)	VC59	VC60	VC71 (3)
Sigara lateralis (Leach)	VC59	VC60	VC71 (3)
Sigara limitata (Fieber)	VC59	-	VC/1 (3)
Sigara nigrolineata (Fieber)	VC59	VC60	VC71 (3)
Sigara scotti (Douglas & Scott)	VC59 VC59	-	VC71 (3) VC71 (3)
Sigara selecta (Fieber) [DELETED]	-	_	-
Sigara senistriata (Fieber)	- VC59	VC60	- VC71 (1)
Sigara stagnalis (Leach)	VC59 VC59	VC60 VC60	v C / I (I)
Sigara venusta (Douglas & Scott)	VC59 VC59	VC60 VC60	VC71 (3)
Digura venusia (Douglas & Deou)	<b>V</b> C37	<b>V</b> C00	7 C/1 (3)

In addition to the above, a record was found for *Psallus mollis* (Mulsant & Rey) from Furness (Woodroffe, 1957), part of the Lancashire & Isle of Man region but located in Watsonian Westmoreland (VC69). The bug is new to this vice-county.

TABLE 1. The references relating to the numbers in the list of divided records.

(1)	Foster & Huxley (2007)	(8)	Mason (1898)	
(2)	Green (1955)	(9)	Popham (1952)	
(3)	Huxley (2003)	(10)	Massee (1946)	
(4)	Popham (1954)	(11)	Chalmers-Hunt (1968)	
(5)	Sanderson (1992)	(12)	Brinkhurst (1959)	
(6)	Scudder (1957)	(13)	Flanagan (2014)	
(7)	Whitehead (2005)			

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I am most grateful to Steve Judd for helpful comments during the course of my research for this article, and for providing a copy of Judd (2009 & 2010), which I was otherwise unable to obtain.

#### THE HEMIPTERIST IS NOW IN PRINT

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Each of the eight previous issues of this journal asserted that 'Completed volumes are printed, hard-bound and deposited in the main entomological libraries of the British Isles, in order to provide a permanent record.' The original aim was, when a sufficient number of volumes had been published, to bind them 'thesis-style' and to distribute these as promised. However, it recently occurred to me that it may be better to bind the individual volumes separately in card, in a similar manner to other journals, and distribute them on a more ongoing basis.

This has now been done for volumes 1 to 4, and bound copies may be found at the following locations: the British Library; the five other copyright libraries (Oxford, Cambridge, Aberystwyth, Edinburgh and Dublin); and the libraries of the Linnean Society, Royal Entomological Society, British Entomology and Natural History Society, Natural History Museum and Oxford University Museum. Future volumes will be printed and bound similarly and distributed to these institutions when ready. Digital copies will, of course, still be available for download from the journal webpage (https://sites.google.com/site/thehemipterist/).

I am most grateful to Gail Howland, ISSN UK Centre, British Library for helpful advice and for efficiently arranging the allocation of ISSNs for this journal; and to Brett Scarrott, Bodleian Libraries, Oxford for kindly forwarding the copyright copies to the Agency for the Legal Deposit Libraries, greatly reducing my postage costs. Thanks also go to the librarians of the aforementioned institutions for agreeing to add the printed journal to their collections.

# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR SUFFOLK INTO VICE-COUNTY LISTS FOR VC25 AND VC26

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#### Introduction

The list of Hemiptera-Heteroptera for Suffolk in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian East Suffolk (VC25) and Watsonian West Suffolk (VC26).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a & 2018b). The resulting vice-county lists include 561 records, compared with 358 for the original Suffolk list. The list for Suffolk as a whole has lengthened by 15, the increase arising from 34 species added to the list and 19 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Suffolk are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking some of the records relate to the references from which they were derived, as indicated in Table 1. The unmarked records are from Morley (1905).

The source for Morley's text was the website of the Biodiversity Heritage library (https://www.biodiversitylibrary.org/), which included additional handwritten records. Those for Brachyarthrum limitatum Fieber included the comment 'The first British specimen was left unnamed by me in the original list of 1905', suggesting that the handwritten records are those of Morley himself. I have therefore included these in the lists below, marked (A).

#### The divided records

ARADIDAE		
Aneurus avenius (Dufour) [NEW]	VC26 (54)	_
Aneurus laevis (Fabricius) [DELETED]	-	-
Aradus depressus (Fabricius)	VC26	VC25
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus)	VC26	VC25
Cyphostethus tristriatus (Fabricius) [NEW]	VC26	VC25
Elasmostethus interstinctus (Linnaeus)	VC26	VC25
Elasmucha grisea (Linnaeus)	VC26	VC25
Cydnidae		
Adomerus biguttatus (Linnaeus)	VC26	VC25
Legnotus limbosus (Geoffroy)	VC26 (33)	VC25
Legnotus picipes (Fallén) [NEW]	VC26 (33)	_
Sehirus luctuosus Mulsant & Rey	VC26 (A)	VC25 (33)
Tritomegas bicolor (Linnaeus)	VC26	VC25
SCUTELLERIDAE		
Eurygaster maura (Linnaeus) [DELETED]	_	_

SCUTELLERIDAE (CONTINUED)		
Eurygaster testudinaria (Geoffroy)	VC26 (33)	VC25 (33)
Odontoscelis fuliginosa (Linnaeus)	-	VC25 (35)
Odontoscelis lineola Rambur	VC26 (33)	VC25 (A)
	, ,	,
Thyreocoridae		
Thyreocoris scarabaeoides (Linnaeus) [NEW]	VC26 (54)	-
<b>D</b>		
PENTATOMIDAE	VC26	VC25
Aelia acuminata (Linnaeus)	VC26 VC26	VC25 VC25
Dolycoris baccarum (Linnaeus) Eurydema oleracea (Linnaeus) [NEW]	VC26 VC26 (54)	VC25 VC25 (24)
Eysarcoris aeneus (Scopoli)	VC26 (34) VC26 (36)	V C23 (24)
Eysarcoris venustissimus (Schrank)	VC26 (30) VC26 (33)	VC25 (33)
Neottiglossa pusilla (Gmelin)	VC26 (A)	VC25 (33) VC25 (A)
Palomena prasina (Linnaeus)	VC26 (11)	VC25 (11)
Pentatoma rufipes (Linnaeus)	VC26	VC25
Peribalus strictus (Fabricius)	-	VC25
Picromerus bidens (Linnaeus)	VC26 (33)	VC25
Piezodorus lituratus (Fabricius)	VC26 (33)	VC25
Podops inunctus (Fabricius)	VC26	VC25
Rhacognathus punctatus (Linnaeus)	VC26 (A)	VC25 (33)
Troilus luridus (Fabricius)	VC26	VC25
Zicrona caerulea (Linnaeus) [NEW]	VC26 (33)	VC25 (33)
COREIDAE		
Arenocoris fallenii (Schilling)	VC26	-
Arenocoris waltlii (Herrich-Schaeffer)	VC26 (1)	VC25 (2)
Bathysolen nubilus (Fallén)	VC26 (37)	-
Coreus marginatus (Linnaeus)	-	VC25
Coriomeris denticulatus (Scopoli)	VC26	VC25
Gonocerus acuteangulatus (Goeze) [NEW]	VC26 (54)	- V(COT (20)
Leptoglossus occidentalis Heidemann	-	VC25 (38)
Spathocera dalmanii (Schilling)	- VC26	VC25
Syromastus rhombeus (Linnaeus)	VC20	VC25 (3)
ALYDIDAE		
Alydus calcaratus (Linnaeus)	VC26 (37)	VC25 (39)
•	` ,	, ,
Rhopalidae		
Brachycarenus tigrinus (Schilling)	-	VC25 (34)
Chorosoma schillingii (Schilling)	VC26 (32)	VC25
Corizus hyoscyami (Linnaeus)	-	VC25 (34)
Liorhyssus hyalinus (Fabricius)	VC26 (4)	-
Myrmus miriformis (Fallén)	VC26	VC25
Rhopalus maculatus (Fieber) [DELETED]	-	-
Rhopalus parumpunctatus Schilling	VC26	-
Rhopalus rufus Schilling	VC26 (21)	-
Rhopalus subrufus (Gmelin)	VC26	-
Stictopleurus abutilon (Rossi) [NEW]	VC26 (54)	-
Stictopleurus punctatonervosus (Goeze)	VC26 (5)	-
PYRRHOCORIDAE		
Pyrrhocoris apterus (Linnaeus)	-	VC25

Lygaeidae		
Acompus rufipes (Wolff)	VC26	VC25
Aphanus rolandri (Linnaeus)	-	VC25 (34)
Chilacis typhae (Perris)	_	VC25 (31)
Cymus claviculus (Fallén)	_	VC25
Cymus glandicolor Hahn	VC26	VC25
Cymus melanocephalus Fieber [NEW]	VC26 (56)	-
Drymus brunneus (R.F. Sahlberg)	VC26 (56)	VC25
Drymus latus Douglas & Scott	VC26	-
Drymus ryeii Douglas & Scott [NEW]	VC26 (54)	VC25 (31)
Drymus sylvaticus (Fabricius)	VC26 (6)	VC25 (51)
Eremocoris podagricus (Fabricius) [NEW]	VC26 (54)	-
Gastrodes abietum Bergroth	-	VC25 (24)
Gastrodes grossipes (De Geer)	VC26	VC25 (21)
Graptopeltus lynceus (Fabricius)	VC26 (7)	VC25
Heterogaster artemisiae Schilling	VC26 (7)	-
Heterogaster urticae (Fabricius)	VC26 (30)	VC25
Ischnocoris angustulus (Boheman)	VC26	VC25
Ischnodemus sabuleti (Fallén)	VC26 (55)	VC25 (39)
Kleidocerys ericae (Horváth)	VC26 (33)	VC25
Kleidocerys resedae (Panzer)	VC26	VC25
Lamproplax picea (Flor) [NEW]	VC26 (20)	-
Lasiosomus enervis (Herrich-Schaeffer)	-	VC25
Macrodema microptera (Curtis)	_	VC25
Megalonotus chiragra (Fabricius) [NEW]	VC26 (54)	-
Megalonotus dilatatus (Herrich-Schaeffer)	VC26 (6)	VC25
Megalonotus praetextatus (Herrich-Schaeffer)	VC26	VC25 (22)
Megalonotus sabulicola (Thomson)	VC26 (6)	VC25 (40)
Nysius ericae (Schilling)	VC26 (8)	-
Nysius huttoni F.B. White	-	VC25 (9)
Nysius senecionis (Schilling) [NEW]	VC26 (54)	-
Nysius thymi (Wolff) [DELETED]	-	_
Ortholomus punctipennis (Herrich-Schaeffer)	VC26 (10)	_
Pachybrachius fracticollis (Schilling)	VC26 (A)	_
Peritrechus convivus (Stål) [NEW]	-	VC25
Peritrechus geniculatus (Hahn)	VC26 (6)	VC25
Peritrechus lundii (Gmelin)	VC26 (6)	-
Peritrechus nubilus (Fallén)	-	VC25
Plinthisus brevipennis (Latreille)	VC26	VC25
Raglius alboacuminatus (Goeze)	-	VC25
Scolopostethus affinis (Schilling)	VC26	VC25
Scolopostethus decoratus (Hahn)	-	VC25
Scolopostethus grandis Horváth [NEW]	VC26 (54)	_
Scolopostethus puberulus Horváth	-	VC25
Scolopostethus thomsoni Reuter	VC26	VC25
Sphragisticus nebulosus (Fallén)	VC26 (41)	_
Stygnocoris fuligineus (Geoffroy)	-	VC25
Stygnocoris rusticus (Fallén)	VC26	VC25
Stygnocoris sabulosus (Schilling)	VC26	VC25
Taphropeltus contractus (Herrich-Schaeffer)	-	VC25
Trapezonotus arenarius (Linnaeus)	VC26 (42)	VC25 (42)
Trapezonotus desertus Seidenstücker	VC26 (42)	-
Trapezonotus dispar Stål [NEW]	VC26 (42)	-

BERYTIDAE		
Berytinus clavipes (Fabricius)	VC26 (A)	VC25 (31)
Berytinus crassipes (Herrich-Schaeffer)	VC26 (7)	VC25
Berytinus minor (Herrich-Schaeffer)	VC26	VC25
Berytinus montivagus (Meyer-Dür)	VC26	VC25
Berytinus signoreti (Fieber)	VC26	VC25
Gampsocoris punctipes (Germar)	VC26	VC25
Metatropis rufescens (Herrich-Schaeffer) [NEW]	-	VC25 (23)
Neides tipularius (Linnaeus)	VC26 (7)	VC25
PIESMATIDAE		
Parapiesma quadratum (Fieber)	_	VC25
Piesma maculatum (Laporte)	VC26	VC25
Tresma maemanim (Euporte)	, 620	, 625
TINGIDAE		
Acalypta parvula (Fallén)	VC26	VC25
Acalypta platycheila (Fieber)	VC26 (11)	-
Agramma laetum (Fallén)	VC26	VC25
Derephysia foliacea (Fallén)	VC26 (55)	VC25
Dictyla convergens (Herrich-Schaeffer)	VC26	VC25
Dictyonota fuliginosa A. Costa	VC26 (A)	-
Dictyonota strichnocera Fieber	-	VC25
Kalama tricornis (Schrank)	VC26	VC25
Physatocheila dumetorum (Herrich-Schaeffer)	VC26	VC25
Stephanitis rhododrendri Horváth [DELETED]	-	-
Tingis ampliata (Herrich-Schaeffer)	VC26	VC25
Tingis cardui (Linnaeus)	VC26	VC25
Tingis reticulata Herrich-Schaeffer	-	VC25
D		
REDUVIDAE		
Coranus subapterus (De Geer) [DELETED]	- VICO ( (50)	-
Coranus woodroffei P.V. Putshkov [NEW]	VC26 (58)	-
Empicoris culiciformis (De Geer)	VC26	-
Empicoris vagabundus (Linnaeus)	-	VC25
Reduvius personatus (Linnaeus)	VC26	VC25
Nabidae		
Himacerus apterus (Fabricius)	VC26 (12)	VC25
Himacerus boops (Schiødte)	VC26	VC25
Himacerus major (A. Costa)	VC26	VC25
Himacerus mirmicoides (O. Costa)	_	VC25
Nabis ericetorum Scholtz	VC26	VC25
Nabis ferus (Linnaeus)	VC26 (55)	-
Nabis flavomarginatus Scholtz	VC26	VC25
Nabis limbatus Dahlbom	VC26	VC25
Nabis lineatus Dahlbom	-	VC25
Nabis pseudoferus Remane	VC26 (8)	VC25 (43)
Nabis rugosus (Linnaeus)	VC26	VC25
Anthocoridae		
Acompocoris alpinus Reuter	VC26 (25)	VC25
Acompocoris pygmaeus (Fallén)	VC26 (23) VC26 (6)	VC25
Anthocoris amplicollis Horváth [NEW]	VC26 (54)	-
Anthocoris confusus Reuter	VC26 (54)	_
Anthocoris gallarumulmi (De Geer) [DELETED]	-	_
Tamason to Senten timentin (De Seet) [DEBETED]		

ANTHOCORIDAE (CONTINUED)		
Anthocoris nemoralis (Fabricius)	VC26	VC25
Anthocoris nemorum (Linnaeus)	VC26 (12)	-
Anthocoris sarothamni Douglas & Scott	VC26 (12)	_
Anthocoris simulans Reuter [NEW]	VC26 (57)	_
Buchananiella continua (F.B. White) [NEW]	VC26 (54)	
Brachysteles parvicornis (A. Costa)	VC20 (34)	VC25
•	- VC26	
Cardiastethus fasciiventris (Garbiglietti)	VC26	VC25
Dufouriellus ater (Dufour)	- NGO ( ( 4 4 )	VC25
Elatophilus nigricornis (Zetterstedt)	VC26 (44)	-
Lyctocoris campestris (Fabricius)	VC26	VC25
Orius laevigatus (Fieber)	-	VC25 (13)
Orius majusculus (Reuter)	VC26 (6)	VC25 (13)
Orius niger (Wolff)	VC26 (13)	-
Temnostethus gracilis Horváth	-	VC25 (45)
Temnostethus pusillus (Herrich-Schaeffer) [NEW]	VC26 (54)	-
Tetraphleps bicuspis (Herrich-Schaeffer)	VC26	VC25
Xylocoridea brevipennis Reuter	-	VC25
Xylocoris cursitans (Fallén)	VC26	-
Xylocoris galactinus (Fieber)	VC26 (26)	VC25
,		
CIMICIDAE		
Cimex columbarius Jenyns [DELETED]	-	-
Cimex lectularius Linnaeus [DELETED]	-	-
Cimex pipistrelli Jenyns [NEW]	VC26 (56)	VC25 (27)
Oeciacus hirundinis (Lamarck)	-	VC25 (39)
<b>M</b>		
MICROPHYSIDAE		
Loricula coleoptrata (Fallén) [DELETED]	-	-
Loricula distinguenda (Reuter)	VC26 (31)	VC25 (31)
Loricula elegantula (Baerensprung)	-	VC25
Loricula exilis (Fallén)	-	VC25
Loricula inconspicua (Douglas & Scott)	-	VC25
Loricula pselaphiformis Curtis	VC26	-
MIRIDAE	11C0 < (00)	11005
Acetropis gimmerthalii (Flor)	VC26 (28)	VC25
Adelphocoris lineolatus (Goeze)	VC26	VC25
Adelphocoris ticinensis (Meyer-Dür)	VC26 (12)	-
Agnocoris reclairei (Wagner)	VC26 (46)	-
Alloeotomus gothicus (Fallén)	VC26 (14)	-
Amblytylus delicatus (Perris) [DELETED]	-	-
Amblytylus nasutus (Kirschbaum)	-	VC25
Apolygus limbatus (Fallén) [DELETED]	-	_
Apolygus lucorum (Meyer-Dür)	VC26	VC25
Apolygus spinolae (Meyer-Dür)	VC26 (55)	VC25
Asciodema obsoleta (Fieber)	-	VC25
Atractotomus magnicornis (Fallén)	_	VC25
Atractotomus mali (Meyer-Dür)	_	VC25
Blepharidopterus angulatus (Fallén)	VC26	VC25 VC25
	VC26 VC26	
Blepharidopterus diaphanus (Kirschbaum)	V C 20	VC25
Brachyarthrum limitatum Fieber	- V(C2)	VC25 (A)
Calocoris roseomaculatus (De Geer)	VC26	VC25
Camptozygum aequale (Villers)	-	VC25
Campyloneura virgula (Herrich-Schaeffer)	VC26	VC25

IRIDAE (CONTINUED)  Capsodes flavomarginatus (Donovan)	_	VC25
Capsodes gothicus (Linnaeus)	VC26 (55)	VC25 VC25
Capsus ater (Linnaeus)	VC26 (55)	V C25
Charagochilus gyllenhalii (Fallén)	VC26 (33) VC26	VC25
Chlamydatus pulicarius (Fallén)	VC26 (47)	V C25
Chlamydatus pullus (Reuter)	VC26 (47) VC26	VC25
Chlamydatus saltitans (Fallén)	VC26 (7)	VC25
Chlamydatus wilkinsoni (Douglas & Scott) [DELETED]	V C20 (1)	-
Closterotomus fulvomaculatus (De Geer)	_	VC25
Closterotomus norwegicus (Gmelin)	VC26 (29)	-
Compsidolon salicellum (Herrich-Schaeffer)	-	VC25
Conostethus roseus (Fallén)	VC26 (55)	VC25
Cyllecoris histrionius (Linnaeus)	VC26 (33) VC26	VC25
Cyrtorhinus caricis (Fallén)	-	VC25
Deraeocoris flavilinea (A. Costa) [NEW]	VC26 (54)	-
Deraeocoris lutescens (Schilling)	VC26 (54) VC26	VC25
Deraeocoris ruber (Linnaeus)	VC26	VC25
Dichrooscytus rufipennis (Fallén)	-	VC25
Dicyphus annulatus (Wolff)	VC26	VC25
Dicyphus epilobii Reuter	VC26 (55)	-
Dicyphus errans (Wolff)	V C20 (33)	VC25
Dicyphus globulifer (Fallén)	VC26 (7)	VC25
Dicyphus globulyer (Fallen) Dicyphus pallicornis (Fieber)	V C20 (1)	VC25
Dicyphus stachydis J. Sahlberg	VC26	VC25
Dicyphus staetiyats 3. Samoerg Dryophilocoris flavoquadrimaculatus (De Geer)	VC26 VC26	VC25
Europiella artemisiae (Becker) [NEW]	VC26 (54)	-
Europiella decolor (Uhler)	V C20 (34)	VC25 (48)
Fieberocapsus flaveolus (Reuter)	-	VC25 (48) VC25
Globiceps flavomaculatus (Fabricius)	-	VC25 VC25
Grobiceps flavomaculalus (Fabricius) Grypocoris stysi (Wagner) [NEW]	VC26 (54)	V C23
Hallodapus rufescens (Burmeister)	VC20 (34)	VC25
Halticus apterus (Linnaeus)	- VC26	VC25 VC25
Halticus apierus (Ellinaeus) Halticus luteicollis (Panzer)	VC26 VC26 (49)	VC25 VC25
Harpocera thoracica (Fallén)	VC26 (49) VC26	VC25 VC25
	V C 20	VC25 (50)
Heterocordylus genistae (Scopoli)	- VC26	VC25 (30) VC25
Heterocordylus tibialis (Hahn)	VC26 VC26	VC25 VC25
Heterotoma planicornis (Pallas)	VC20	VC25 VC25 (23)
Hoplomachus thunbergii (Fallén)	- VC26 (55)	VC25 (23) VC25
Leptopterna dolabrata (Linnaeus)	VC26 (55)	
Leptopterna ferrugata (Fallén)	VC26 (55) VC26	VC25
Liocoris tripustulatus (Fabricius)		VC25
Lopus decolor (Fallén)	VC26 (55)	VC25
Lygocoris pabulinus (Linnaeus)	VC26	VC25
Lygocoris rugicollis (Fallén)	- VC26 (15)	VC25
Lygus rugulipennis Poppius  Managaria kana mahariki (Fellén)	VC26 (15)	- VC25
Macrotylus paykullii (Fallén)	- V/C26	VC25
Macrotylus solitarius (Meyer-Dür)	VC26	- NG25
Malacocoris chlorizans (Panzer)	- VC26 (20)	VC25
Mecomma ambulans (Fallén)	VC26 (28)	VC25
Mecomma dispar (Boheman)	-	VC25
Megacoelum beckeri (Fieber) [DELETED]	- V/C26	-
Megacoelum infusum (Herrich-Schaeffer)	VC26	VC25
Megaloceroea recticornis (Geoffroy)	VC26	VC25
Megalocoleus molliculus (Fallén)	VC26	VC25

MIRIDAE (CONTINUED)		
Megalocoleus tanaceti (Fallén) [NEW]	_	VC25 (56)
Miridius quadrivirgatus (A. Costa)	_	VC25
Miris striatus (Linnaeus)	VC26	VC25
Myrmecoris gracilis (R.F. Sahlberg) [NEW]	VC26 (56)	-
Monalocoris filicis (Linnaeus)	VC26 (55)	VC25
Neolygus contaminatus (Fallén)	VC26 (33) VC26 (12)	VC25
Neolygus viridis (Fallén)	VC26 (12) VC26	VC25
	VC26 VC26	VC25 VC25
Notostira elongata (Geoffroy)	VC26 VC26	
Oncotylus viridiflavus (Goeze)	V C 20	VC25
Orthocephalus coriaceus (Fabricius)	- VC26	VC25
Orthocephalus saltator (Hahn)	VC26	VC25
Orthonotus rufifrons (Fallén)	VC26	VC25
Orthops campestris (Linnaeus) [DELETED]	-	-
Orthops kalmii (Linnaeus) [DELETED]	-	- N/C25 (20)
Orthotylus adenocarpi (Perris)	-	VC25 (39)
Orthotylus bilineatus (Fallén)	-	VC25
Orthotylus concolor (Kirschbaum)	VC26 (12)	VC25 (39)
Orthotylus ericetorum (Fallén)	-	VC25
Orthotylus flavinervis (Kirschbaum)	VC26	VC25
Orthotylus flavosparsus (C.R. Sahlberg)	-	VC25
Orthotylus marginalis Reuter	VC26	VC25
Orthotylus moncreaffi (Douglas & Scott)	-	VC25
Orthotylus ochrotrichus Fieber	VC26 (A)	VC25 (39)
Orthotylus prasinus (Fallén)	-	VC25
Orthotylus rubidus (Puton)	-	VC25 (51)
Orthotylus tenellus (Fallén)	-	VC25
Orthotylus virescens (Douglas & Scott)	-	VC25
Orthotylus viridinervis (Kirschbaum)	-	VC25
Pantilius tunicatus (Fabricius)	VC26	VC25
Phoenicocoris obscurellus (Fallén)	-	VC25
Phylus coryli (Linnaeus)	VC26	VC25
Phylus melanocephalus (Linnaeus)	VC26	VC25
Phytocoris dimidiatus Kirschbaum	-	VC25
Phytocoris longipennis Flor	VC26 (55)	VC25
Phytocoris populi (Linnaeus)	VC26 (25)	VC25
Phytocoris reuteri Saunders	VC26 (A)	_
Phytocoris tiliae (Fabricius)	VC26	VC25
Phytocoris ulmi (Linnaeus)	VC26	VC25
Phytocoris varipes Boheman	VC26 (12)	VC25
Pilophorus cinnamopterus (Kirschbaum)	VC26	-
Pilophorus clavatus (Linnaeus) [NEW]	VC26 (54)	_
Pilophorus perplexus Douglas & Scott	VC26 (16)	_
Pinalitus atomarius (Meyer-Dür)	VC26	_
Pinalitus cervinus (Herrich-Schaeffer)	VC26	VC25
Pinalitus rubricatus (Fallén)	VC26 (12)	VC25
Pithanus maerkelii (Herrich-Schaeffer)	V C20 (12)	VC25
Plagiognathus arbustorum (Fabricius)	VC26 (12)	V C23
Plagiognathus chrysanthemi (Wolff)	VC26 (12) VC26 (12)	-
•	VC26 (12) VC26 (12)	VC25
Platycranus bicolor (Douglas & Scott)	VC20 (12)	
Polymerus nigrita (Fallén)	- VC26	VC25
Polymerus unifasciatus (Fabricius)	VC26	- V/COF (20)
Polymerus vulneratus (Panzer) [NEW]	-	VC25 (30)
Psallus ambiguus (Fallén)	-	VC25
Psallus falleni Reuter	VC26 (A)	-

MIRIDAE (CONTINUED)		
Psallus flavellus Stichel	_	VC25
Psallus haematodes (Gmelin)	VC26	VC25
Psallus lepidus Fieber	VC26	VC25
Psallus luridus Reuter	VC26 (21)	-
Psallus perrisi (Mulsant & Rey) [NEW]	VC26 (57)	-
Psallus salicis (Kirschbaum)	-	VC25
Psallus varians (Herrich-Schaeffer) [DELETED]	-	-
Pseudoloxops coccineus (Meyer-Dür)	VC26	_
Rhabdomiris striatellus (Fabricius)	VC26	VC25
Salicarus roseri (Herrich-Schaeffer)	-	VC25
Stenodema calcarata (Fallén)	VC26 (55)	VC25
Stenodema laevigata (Linnaeus)	VC26 (12)	-
Stenodema trispinosa Reuter	-	VC25 (39)
Stenotus binotatus (Fabricius)	VC26	VC25
Sthenarus rotermundi (Scholtz)	VC26	-
Systellonotus triguttatus (Linnaeus)	VC26 (A)	-
Teratocoris antennatus (Boheman)	-	VC25
Teratocoris saundersi Douglas & Scott	-	VC25 (A)
Tinicephalus hortulanus (Meyer-Dür)	-	VC25
Trigonotylus caelestialium (Kirkaldy) [NEW]	VC26 (54)	-
Trigonotylus psammaecolor Reuter	-	VC25 (52)
Trigonotylus ruficornis (Geoffroy) [NEW]	VC26 (55)	-
Tuponia mixticolor (A. Costa)	-	VC25 (53)
Tytthus pygmaeus (Zetterstedt)	-	VC25
CERATOCOMBIDAE		
Ceratocombus coleoptratus (Zetterstedt)	_	VC25
		, 626
SALDIDAE		
Chartoscirta cincta (Herrich-Schaeffer)	VC26	VC25
Chartoscirta cocksii (Curtis)	-	VC25
Chiloxanthus pilosus (Fallén)	-	VC25
Halosalda lateralis (Fallén)	-	VC25
Salda littoralis (Linnaeus)	-	VC25
Saldula opacula (Zetterstedt)	-	VC25
Saldula orthochila (Fieber)	VC26 (8)	VC25
Saldula pilosella (Thomson)	-	VC25
Saldula saltatoria (Linnaeus)	VC26 (12)	VC25
MESOVELIIDAE		
Mesovelia furcata Mulsant & Rey	VC26 (59)	VC25 (59)
Henry		
HEBRIDAE		VC25
Hebrus pusillus (Fallén) Hebrus ruficeps Thomson	-	VC25 VC25
Heorus rujiceps Thomson	-	<b>V</b> C23
HYDROMETRIDAE		
Hydrometra stagnorum (Linnaeus)	VC26	VC25
VELIIDAE		
Microvelia pygmaea (Dufour)	-	VC25 (59)
Microvelia reticulata (Burmeister)	VC26 (59)	VC25 (59)
Velia caprai Tamanini	VC26 (59)	VC25 (59)
Velia saulii Tamanini [DELETED]	-	- ()
•		

GERRIDAE		
Aquarius najas (De Geer)	VC26	_
Aquarius najus (De Geer) Aquarius paludum (Fabricius)	VC26 (18)	VC25 (17)
Gerris argentatus Schummel	-	VC25 (17) VC25 (59)
Gerris gibbifer Schummel	_	VC25 (37)
Gerris gabajer schummer Gerris lacustris (Linnaeus)	VC26 (59)	VC25 (59)
Gerris lateralis Schummel [DELETED]	V C20 (37)	• C23 (37)
Gerris odontogaster (Zetterstedt)	VC26 (59)	VC25 (59)
Gerris thoracicus Schummel	V C20 (39)	VC25 (39) VC25
Limnoporus rufoscutellatus (Latreille)	-	VC25 VC25
Linnoporus rujoscuienaus (Laucine)	_	V C23
NEPIDAE		
Nepa cinerea Linnaeus	VC26 (59)	VC25 (59)
Ranatra linearis (Linnaeus)	VC26 (59)	VC25 (59)
,	, ,	, ,
NAUCORIDAE		
Ilyocoris cimicoides (Linnaeus)	VC26 (59)	VC25 (59)
Nomenagement		
Notonectidae	1100 ( (50)	11005 (50)
Notonecta glauca Linnaeus	VC26 (59)	VC25 (59)
Notonecta maculata Fabricius	VC26 (59)	VC25 (59)
Notonecta obliqua Thunberg	- ************************************	VC25 (59)
Notonecta viridis Delcourt	VC26 (59)	VC25 (59)
PLEIDAE		
Plea minutissima Leach	VC26 (59)	VC25 (59)
1 to a minimum bound	, 620 (87)	(020 (0))
CORIXIDAE		
Arctocorisa germari (Fieber)	-	VC25 (59)
Callicorixa praeusta (Fieber)	VC26 (59)	VC25 (59)
Corixa affinis Leach	-	VC25 (59)
Corixa dentipes Thomson	VC26 (59)	VC25 (59)
Corixa panzeri Fieber	VC26 (59)	VC25 (59)
Corixa punctata (Illiger)	VC26 (59)	VC25 (59)
Cymatia bonsdorffii (C.R. Sahlberg)	VC26 (59)	-
Cymatia coleoptrata (Fabricius)	VC26 (59)	VC25 (59)
Hesperocorixa linnaei (Fieber)	VC26 (59)	VC25 (59)
Hesperocorixa moesta (Fieber)	VC26 (59)	VC25 (59)
Hesperocorixa sahlbergi (Fieber)	VC26 (59)	VC25 (59)
Micronecta minutissima (Linnaeus)	-	VC25 (59)
Micronecta poweri (Douglas & Scott)	VC26 (59)	VC25 (59)
Micronecta scholtzi (Fieber)	VC26 (59)	VC25 (59)
Paracorixa concinna (Fieber)	VC26 (59)	VC25 (59)
Sigara distincta (Fieber)	VC26 (59)	VC25 (59)
Sigara dorsalis (Leach)	VC26 (59)	VC25 (59)
Sigara falleni (Fieber)	VC26 (59)	VC25 (59)
Sigara fossarum (Leach)	VC26 (59)	VC25 (59)
Sigara iactans Jansson	VC26 (18)	VC25 (19)
Sigara lateralis (Leach)	VC26 (59)	VC25 (59)
Sigara limitata (Fieber)	VC26 (59)	VC25 (59)
Sigara nigrolineata (Fieber)	VC26 (59)	VC25 (59)
Sigara selecta (Fieber)	VC26 (59)	VC25 (59)
Sigara semistriata (Fieber)	-	VC25 (59)
Sigara stagnalis (Leach)	VC26 (59)	VC25 (59)
Sigara venusta (Douglas & Scott)	VC26 (59)	VC25 (59)
sizara remisia (Dougius a scott)	, 020 (37)	1023 (37)

TABLE 1. The references relating to the numbers in the list of divided records.

		1	
(1)	Bedwell (1923)	(31)	Anon. (1933)
(2)	Morley (1920)	(32)	Hammond (1974)
(3)	Bowdrey (2006)	(33)	Hubbard (2009)
(4)	Judd (2011)	(34)	Cuming (2006)
(5)	Gibbs (2006)	(35)	Alexander et al. (1999)
(6)	Collett (1935)	(36)	Kirby (1999)
(7)	Bedwell (1935)	(37)	Woodroffe (1954)
(8)	Widgery (2007)	(38)	Deans (2010)
(9)	Cuming (2008)	(39)	Southwood (1954)
(10)	China (1938)	(40)	Southwood (1963)
(11)	China (1935)	(41)	Nau (2004)
(12)	Collett (1928)	(42)	Woodroffe (1960)
(13)	Britten (1939)	(43)	Massee (1958)
(14)	Massee (1952)	(44)	Roche (1964)
(15)	Leston (1951)	(45)	Le Quesne (1955)
(16)	Bedwell (1924)	(46)	Massee (1953)
(17)	Chalkley (2010)	(47)	Woodroffe (1967)
(18)	Chalkley (2015)	(48)	Dolling (1999)
(19)	Chalkley (2008)	(49)	Hodge (1984)
(20)	Anon. (1934)	(50)	Fryer (1965)
(21)	Bedwell (1938a)	(51)	Southwood & Leston (1957)
(22)	Bedwell (1938b)	(52)	Lansbury (1963)
(23)	Morley (1944b)	(53)	Barclay & Nau (2003)
(24)	Morley (1944a)	(54)	Ryan (2016c)
(25)	Elliott (1931)	(55)	Ryan (2017a)
(26)	Morley (1937)	(56)	Ryan (2017b)
(27)	Hulson (1964)	(57)	Ryan & Warrington (2017)
(28)	Morley (1944c)	(58)	Ryan (2016d)
(29)	Boreham (1962)	(59)	Huxley (2003)
(30)	Morley (1947)		
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During the course of the research for this article, new records were found for several neighbouring vice-counties, as follows.

Acompus pallipes (Herrich-Schaeffer) (Lygaeidae), North. Essex (VC19) (China, 1935) Ischnocoris angustulus (Boheman) (Lygaeidae), East Norfolk (VC27) (Collett, 1927) Tingis angustata (Herrich-Schaeffer) (Tingidae), North. Essex (VC19) (Massee, 1942) Amblytylus brevicollis Fieber (Miridae), East Norfolk (VC27) (Leston, 1953) Conostethus griseus Douglas & Scott (Miridae), North Essex (VC19) (Nau, 1978) Pinalitus atomarius (Meyer-Dür) (Miridae), East Norfolk (VC27) (Morley, 1905) Limnoporus rufoscutellatus (Latreille) (Gerridae), East Norfolk (VC27) (Leston, 1956)

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# SOME NEGATIVE RESULTS IN THE SEARCH FOR NOTOSTIRA ERRATICA (LINNAEUS) (MIRIDAE) IN SUSSEX AND YORKSHIRE

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This bug was reported as absent from the British Isles by Southwood & Leston (1959), but was restored by Woodroffe (1977) reporting it from Ireland and Wiltshire. The Wiltshire record was based upon female specimens, which may have been the very similar *Notostira elongata* (Geoffroy), as the two species are only readily separated by examination of the male genitalia. However, the presence of *N. erratica* in mainland Britain was recently confirmed by Nelson (2014) reporting the male from a site in the Oxfordshire Chilterns. Since then, more sites in Oxfordshire have been found, and the animal has also been reported from Berkshire, Buckinghamshire, Gloucestershire, Warwickshire and Northamptonshire (Ryan, 2015a & 2015b). The apparent ease with which Ryan appears to have found the insect, by specifically targeting road verges and field margins, rather than open grassland, suggested the animal may be found to be more widespread if sought in these situations elsewhere.

In the last two years I made a determined effort to find *N. erratica* in two new localities, on the Sussex coast and in East Yorkshire, but failed on both occasions, taking only *N. elongata*. The results of these studies are shown in Tables 1 & 2. The large numbers of male *Notostira* Fieber taken without success, indicates that *N. erratica* is either absent in verge/margin habitats in these two areas, or not present as commonly as it has been found in Oxfordshire and surrounding counties. If it had been as common, dozens of *N. erratica* would have been taken amongst the catch.

This is the first indication that the geographical distributions of the two *Notostira* species in mainland Britain may not be coincident. This is already known to be the case in Ireland, where *N. erratica* occurs but *N. elongata* does not.

I would be grateful to know of any other negative results by hemipterists in searching for N. erratica, as these can obviously be just as informative as positive results in understanding the animal's natural history.

Although I was not able to add new county records for *N. erratica*, I was able to add *Eysarcoris venustissimus* (Schrank) (Pentatomidae) to the county distribution for South-east Yorkshire (VC61) (Ryan, 2017). I swept two specimens of the bug along a road verge in the Wolds, near Market Weighton (SE956343) on 29 August. It was also pleasing to encounter several specimens of *Himacerus major* (A. Costa) (Nabidae) at three of the sites. This was commonly encountered in my late season searches for *N. erratica* in the counties surrounding Oxfordshire. The species is seldom encountered by my sweeping in other circumstances.

Table 1. Records of 136 male *Notostira* from the Sussex coast, 15 to 18 August 2016.

15 August, shoreline, Bosham (SU804033)	6 males, all <i>N. elongata</i>
16 August, shoreline, Pagham Harbour (SZ873957)	1 male N. elongata
16 August, road verge, Fishbourne (SU826048)	2 males, both <i>N. elongata</i>
16 August, shoreline, Bosham (SU799029)	46 males, all N. elongata
17 August, dunes, Hayling Island, Hampshire (SZ688995)	5 males, all N. elongata
17 August, seawall, Thorney Island (SU765040)	75 males, all N. elongata
18 August, shoreline, Dell Quay, Chichester (SU837031)	1 male <i>N. elongata</i>

Table 2. Records of 150 male Notostira from East Yorkshire, 29 August to 2 September 2017.

29 August, road verge, North Cave, Vale of York (SE876315) 29 August, road verge, Little Weighton, the Wolds (SE956343) 30 August, road verge, Paul, Holderness (TA174271) 30 August, river bank, Paul, River Humber (TA165268) 31 August, road verge, Patrington, Holderness (TA333215) 31 August, road verge, Fasington, Holderness (TA389194)	15 males, all <i>N. elongata</i> 2 males, both <i>N. elongata</i> 38 males, all <i>N. elongata</i> 3 males, all <i>N. elongata</i> 10 males, all <i>N. elongata</i>
31 August, road verge, Easington, Holderness (TA389194) 31 August, river bank, Kilnsea, River Humber (TA410157) 31 August, road verge, Roos, Holderness (TA285313) 1 September, road verge, West End, Vale of York (TA908305)	2 males, both <i>N. elongata</i> 32 males, all <i>N. elongata</i> 15 males, all <i>N. elongata</i> 33 males, all <i>N. elongata</i>

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR SUSSEX INTO VICE-COUNTY LISTS FOR VC13 AND VC14

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#### Introduction

The list of Hemiptera-Heteroptera for Sussex in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian West Sussex (VC13) and Watsonian East Sussex (VC14).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013a, 2014, 2015a, 2016a, 2016b, 2018a & 2018b). The resulting vice-county lists include 542 records, compared with 386 for the original Sussex list. The list for Sussex as a whole has shortened by six, the decrease arising from 15 species added to the list and 21 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Sussex are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking some of the records relate to the references from which they were derived, as indicated in Table 1. The unmarked records are from Butler (1905).

#### The divided records

Aradidae		
Aneurus avenius (Dufour)	-	VC14 (72)
Aneurus laevis (Fabricius)	-	VC14 (1)
Aradus aterrimus Fieber	VC13 (36)	-
Aradus corticalis (Linnaeus) [DELETED]	-	-
Aradus depressus (Fabricius)	VC13	VC14
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus)	VC13	VC14
Cyphostethus tristriatus (Fabricius)	VC13	VC14 (42)
Elasmostethus interstinctus (Linnaeus)	VC13	VC14
Elasmucha grisea (Linnaeus)	VC13	VC14
CYDNIDAE		
Adomerus biguttatus (Linnaeus)	-	VC14
Canthophorus impressus (Horváth)	VC13	VC14 (66)
Legnotus limbosus (Geoffroy)	VC13	VC14
Legnotus picipes (Fallén)	-	VC14 (2)
Sehirus luctuosus Mulsant & Rey	-	VC14 (54)
Tritomegas bicolor (Linnaeus)	-	VC14 (3)
THYREOCORIDAE		
Thyreocoris scarabaeoides (Linnaeus)	-	VC14 (39)

SCUTELLERIDAE		
Eurygaster maura (Linnaeus) [DELETED]	-	-
Eurygaster testudinaria (Geoffroy) [DELETED]	-	-
Odontoscelis lineola Rambur	-	VC14 (1)
PENTATOMIDAE		
Aelia acuminata (Linnaeus)	VC13	VC14
Dolycoris baccarum (Linnaeus)	VC13	VC14
Eurydema dominulus (Scopoli)	-	VC14
Eurydema oleracea (Linnaeus)	-	VC14
Eurydema ornata (Linnaeus)	VC13 (2)	VC14 (56)
Eysarcoris aeneus (Scopoli)	-	VC14 (1)
Eysarcoris venustissimus (Schrank)	VC13 (4)	_
Neottiglossa pusilla (Gmelin)	VC13 (4)	VC14
Palomena prasina (Linnaeus)	VC13	VC14
Pentatoma rufipes (Linnaeus)	VC13	VC14
Peribalus strictus (Fabricius)	VC13	VC14 (67)
Picromerus bidens (Linnaeus)	- VC12	VC14 VC14
Piezodorus lituratus (Fabricius)	VC13 VC13	VC14 VC14
Podops inunctus (Fabricius) Rhacognathus punctatus (Linnaeus)	VC13 VC13	VC14 VC14
Troilus luridus (Fabricius)	VC13 VC13	VC14 VC14
Zicrona caerulea (Linnaeus)	VC13	VC14 VC14
Zierona euermea (Linnaeus)	VC13	VC14
COREIDAE		
Ceraleptus lividus Stein	VC13 (4)	VC14
Coreus marginatus (Linnaeus)	VC13	VC14
Coriomeris denticulatus (Scopoli)	VC13	VC14
Enoplops scapha (Fabricius)	- V(C12 (55)	VC14
Gonocerus acuteangulatus (Goeze)	VC13 (55)	- V(C14 (50)
Leptoglossus occidentalis Heidemann	VC13 (59)	VC14 (59)
Spathocera dalmanii (Schilling) Syromastus rhombeus (Linnaeus) [DELETED]	VC13 (57)	-
Syromasius rnombeus (Liiiliaeus) [DELETED]	-	-
ALYDIDAE		
Alydus calcaratus (Linnaeus)	-	VC14 (70)
RHOPALIDAE		
Chorosoma schillingii (Schilling)	_	VC14
Corizus hyoscyami (Linnaeus)	VC13	VC14 (68)
Liorhyssus hyalinus (Fabricius)	VC13 (5)	VC14 (53)
Myrmus miriformis (Fallén)	VC13	VC14
Rhopalus maculatus (Fieber)	VC13	VC14
Rhopalus parumpunctatus Schilling	-	VC14
Rhopalus subrufus (Gmelin)	VC13	VC14
Stictopleurus punctatonervosus (Goeze)	VC13 (6)	VC14 (53)
STENOCEPHALIDAE		
Dicranocephalus agilis (Scopoli)	VC13	VC14 (1)
Dicranocephalus medius (Mulsant & Rey)	VC13 (58)	-
Lygaeidae		
Aphanus rolandri (Linnaeus)	_	VC14 (7)
Chilacis typhae (Perris)	_	VC14 (7)
Cymus aurescens Distant	_	VC14 (1)
······································		- (-)

Lygaeidae (continued)		
Cymus claviculus (Fallén)	-	VC14
Cymus glandicolor Hahn	VC13 (8)	VC14
Cymus melanocephalus Fieber	VC13	-
Drymus brunneus (R.F. Sahlberg)	VC13	VC14
Drymus latus Douglas & Scott [DELETED]	-	-
Drymus pilicornis (Mulsant & Rey) [DELETED]	-	-
Drymus sylvaticus (Fabricius)	-	VC14 (70)
Emblethis denticollis Horváth	VC13 (52)	-
Eremocoris podagricus (Fabricius)	VC13 (42)	_
Gastrodes grossipes (De Geer)	-	VC14
Graptopeltus lynceus (Fabricius)	-	VC14
Henestaris laticeps (Curtis)	VC13	VC14
Heterogaster artemisiae Schilling [NEW]	VC13	-
Heterogaster urticae (Fabricius)	-	VC14
Ischnocoris angustulus (Boheman)	-	VC14
Ischnodemus sabuleti (Fallén)	VC13 (39)	VC14 (28)
Kleidocerys ericae (Horváth)	VC13 (9)	VC14 (10)
Kleidocerys resedae (Panzer)	VC13	VC14
Lamproplax picea (Flor)	VC13 (9)	_
Lasiosomus enervis (Herrich-Schaeffer)	-	VC14 (43)
Macrodema microptera (Curtis)	VC13	VC14
Megalonotus antennatus (Schilling)	-	VC14
Megalonotus chiragra (Fabricius) [NEW]	VC13 (76)	VC14 (76)
Megalonotus dilatatus (Herrich-Schaeffer)	-	VC14
Megalonotus praetextatus (Herrich-Schaeffer)	-	VC14
Megalonotus sabulicola (Thomson) [NEW]	-	VC14
Metopoplax ditomoides (A. Costa)	VC13 (52)	-
Nysius ericae (Schilling)	VC13 (31)	_
Nysius graminicola (Kolenati)	VC13 (63)	_
Nysius helveticus (Herrich-Schaeffer)	VC13 (55)	_
Nysius huttoni F.B. White	VC13 (65)	VC14 (65)
Nysius senecionis (Schilling)	VC13 (11)	VC14 (49)
Nysius thymi (Wolff) [DELETED]	-	-
Ortholomus punctipennis (Herrich-Schaeffer)	_	VC14 (50)
Pachybrachius fracticollis (Schilling)	VC13	-
Peritrechus convivus (Stål)	VC13	_
Peritrechus geniculatus (Hahn)	V C 1 3	VC14
Peritrechus gracilicornis Puton	_	VC14 VC14
Peritrechus lundii (Gmelin)	VC13	VC14 VC14
Peritrechus nubilus (Fallén)	VC13 (12)	VC14 VC14
Plinthisus brevipennis (Latreille)	VC13 (12) VC13	VC14 VC14
Rhyparochromus pini (Linnaeus)	V C13	VC14 VC14
Scolopostethus affinis (Schilling)	VC13	VC14 VC14
Scolopostethus decoratus (Hahn)	VC13 (9)	VC14 VC14 (70)
Scolopostethus grandis Horváth	VC13 (9)	VC14 (70) VC14
-	-	VC14 VC14 (71)
Scolopostethus pictus (Schilling)	-	
Scolopostethus puberulus Horváth	VC13	VC14
Scolopostethus thomsoni Reuter		VC14
Stygnocoris fuligineus (Geoffroy)	VC13	VC14
Stygnocoris rusticus (Fallén)	VC13	VC14
Stygnocoris sabulosus (Schilling) Tanhanaltus contractus (Horrich Schooffer)	VC13	VC14
Taphropeltus contractus (Herrich-Schaeffer)	- VC12 (25)	VC14 (70)
Trapezonotus arenarius (Linnaeus)	VC13 (35)	-
Trapezonotus dispar Stål [NEW]	VC13 (35)	-

BERYTIDAE		
Berytinus crassipes (Herrich-Schaeffer)	_	VC14
Berytinus hirticornis (Brullé)	-	VC14 (39)
Berytinus minor (Herrich-Schaeffer)	VC13	VC14
Berytinus montivagus (Meyer-Dür)	VC13	VC14 (39)
Berytinus signoreti (Fieber)	-	VC14
Gampsocoris punctipes (Germar)	VC13	VC14
Metatropis rufescens (Herrich-Schaeffer)	-	VC14
Neides tipularius (Linnaeus) [DELETED]	-	-
PIESMATIDAE		
Parapiesma quadratum (Fieber)	VC13	VC14
Piesma maculatum (Laporte)	VC13	VC14
TINGIDAE		
Acalypta brunnea (Germar)	-	VC14
Acalypta carinata (Panzer)	-	VC14
Acalypta nigrina (Fallén) [DELETED]	-	-
Acalypta parvula (Fallén)	VC13	VC14
Acalypta platycheila (Fieber)	VC13 (13,14)	-
Agramma laetum (Fallén)	-	VC14
Catoplatus fabricii (Stål)	-	VC14
Derephysia foliacea (Fallén)	VC13	VC14
Dictyla convergens (Herrich-Schaeffer)	VC13	VC14
Dictyonota strichnocera Fieber	- VC13	VC14 VC14
Kalama tricornis (Schrank) Oncochila simplex (Herrich-Schaeffer)	VC13 VC13 (42)	VC14
Physatocheila dumetorum (Herrich-Schaeffer)	VC13 (42) VC13	VC14
Physatocheila smreczynskii China	VC15	VC14 VC14 (15)
Stephanitis rhododrendri Horváth [DELETED]	-	-
Tingis ampliata (Herrich-Schaeffer)	VC13	VC14
Tingis angustata (Herrich-Schaeffer)	VC13	-
Tingis cardui (Linnaeus)	-	VC14 (70)
Tingis reticulata Herrich-Schaeffer	VC13 (41)	VC14
REDUVIIDAE		
Empicoris culiciformis (De Geer)	_	VC14
Empicoris vagabundus (Linnaeus)	VC13	VC14
Reduvius personatus (Linnaeus)	VC13	-
Nabidae		
Himacerus apterus (Fabricius)	_	VC14
Himacerus boops (Schiødte) [DELETED]	_	-
Himacerus major (A. Costa)	_	VC14 (70)
Himacerus mirmicoides (O. Costa)	VC13	VC14
Nabis brevis Scholtz [DELETED]	-	-
Nabis ericetorum Scholtz	-	VC14 (70)
Nabis ferus (Linnaeus)	-	VC14 (70)
Nabis flavomarginatus Scholtz	VC13	VC14
Nabis limbatus Dahlbom	-	VC14 (70)
Nabis lineatus Dahlbom	VC13	VC14
Nabis rugosus (Linnaeus)	-	VC14 (70)
ANTHOCORIDAE		
Acompocoris alpinus Reuter	VC13 (4)	VC14

ANTHOCORIDAE (CONTINUED)		
Acompocoris pygmaeus (Fallén)	VC13	VC14
Anthocoris confusus Reuter	-	VC14 (70)
Anthocoris gallarumulmi (De Geer)	_	VC14
Anthocoris nemoralis (Fabricius)	_	VC14 (70)
Anthocoris nemorum (Linnaeus)	_	VC14 (70)
Anthocoris sarothamni Douglas & Scott	_	VC14 (70) VC14
	-	
Brachysteles parvicornis (A. Costa)	- V(C12 (77)	VC14 (38)
Buchananiella continua (F.B. White) [NEW]	VC13 (77)	-
Cardiastethus fasciiventris (Garbiglietti) [DELETED]	-	-
Dufouriellus ater (Dufour)	-	VC14
Lyctocoris campestris (Fabricius)	-	VC14 (70)
Orius laevigatus (Fieber) [NEW]	-	VC14 (16)
Orius majusculus (Reuter)	-	VC14 (16)
Orius niger (Wolff)	-	VC14 (16)
Temnostethus gracilis Horváth	-	VC14 (27)
Temnostethus pusillus (Herrich-Schaeffer)	-	VC14 (27)
Tetraphleps bicuspis (Herrich-Schaeffer)	VC13	-
Xylocoris cursitans (Fallén)	-	VC14
<i>Xylocoris galactinus</i> (Fieber)	-	VC14
CIMICIDAE		
Cimex lectularius Linnaeus	-	VC14 (70)
Cimex pipistrelli Jenyns [DELETED]	-	-
MICROPHYSIDAE		
Loricula elegantula (Baerensprung)	VC13	VC14
Loricula exilis (Fallén) [NEW]	_	VC14
Loricula inconspicua (Douglas & Scott)	_	VC14
Loricula pselaphiformis Curtis	VC13	VC14
1 1 3		
MIRIDAE		
Acetropis gimmerthalii (Flor)	VC13 (4)	VC14
Adelphocoris lineolatus (Goeze)	VC13	VC14
Adelphocoris ticinensis (Meyer-Dür)	VC13 (51)	_
Agnocoris reclairei (Wagner)	-	VC14 (56)
Alloeotomus gothicus (Fallén)	_	VC14 (17)
Amblytylus brevicollis Fieber [DELETED]	_	-
Amblytylus nasutus (Kirschbaum)	_	VC14
Apolygus lucorum (Meyer-Dür)	VC13	VC14 VC14
Apolygus spinolae (Meyer-Dür)	VC13	VC14 VC14
Asciodema obsoleta (Fieber)	-	VC14 VC14
	VC13	
Atractotomus magnicornis (Fallén)		VC14
Atractotomus mali (Meyer-Dür) [NEW]	VC13 (76)	- MO14 (40)
Atractotomus parvulus Reuter	-	VC14 (40)
Blepharidopterus angulatus (Fallén)	-	VC14 (70)
Blepharidopterus diaphanus (Kirschbaum)	-	VC14
Bothynotus pilosus (Boheman)	-	VC14
Bryocoris pteridis (Fallén)	-	VC14
Calocoris roseomaculatus (De Geer)	VC13	VC14
Camptozygum aequale (Villers)	-	VC14
Campyloneura virgula (Herrich-Schaeffer)	-	VC14 (18)
Capsodes flavomarginatus (Donovan) [DELETED]	-	-
Capsodes gothicus (Linnaeus)	VC13	VC14
Capsodes sulcatus (Fieber)	VC13	-

MIRIDAE (CONTINUED)		
Capsus ater (Linnaeus)	VC13	VC14
Capsus wagneri (Remane)	VC13 (47)	VC14
Charagochilus gyllenhalii (Fallén)	VC13 (47)	VC14
Chlamydatus pullus (Reuter)	_	VC14 VC14
Chlamydatus saltitans (Fallén)	-	VC14 VC14
Closterotomus fulvomaculatus (De Geer)	VC13	VC14 VC14
Closterotomus juivomaculatus (De Geel) Closterotomus norwegicus (Gmelin)	VCIS	
9	VC13	VC14 (70)
Compsidolon salicellum (Herrich-Schaeffer)		VC14
Conostethus griseus Douglas & Scott	VC13 (43)	- V/C14
Cyllecoris histrionius (Linnaeus)	VC13	VC14
Cyrtorhinus caricis (Fallén)	VC13	VC14
Deraeocoris flavilinea (A. Costa)	-	VC14 (55)
Deraeocoris lutescens (Schilling) [NEW]	VC13 (76)	VC14 (76)
Deraeocoris olivaceus (Fabricius)	VC13 (19)	VC14 (42)
Deraeocoris ruber (Linnaeus)	VC13 (9)	VC14
Dichrooscytus gustavi Josifov	VC13 (33)	-
Dichrooscytus rufipennis (Fallén)	VC13 (4)	VC14
Dicyphus annulatus (Wolff) [NEW]	-	VC14 (73)
Dicyphus constrictus (Boheman)	-	VC14
Dicyphus epilobii Reuter	-	VC14 (70)
Dicyphus errans (Wolff)	VC13	VC14
Dicyphus globulifer (Fallén)	VC13	VC14
Dicyphus pallicornis (Fieber)	-	VC14
Dicyphus pallidus (Herrich-Schaeffer)	VC13 (61)	-
Dicyphus stachydis J. Sahlberg	-	VC14
Dryophilocoris flavoquadrimaculatus (De Geer)	VC13	VC14
Europiella decolor (Uhler)	VC13 (44)	_
Globiceps flavomaculatus (Fabricius)	-	VC14
Globiceps fulvicollis Jakovlev	VC13 (69)	VC14
Globiceps juniperi Reuter	VC13 (34)	-
Grypocoris stysi (Wagner) [NEW]	VC13 (76)	_
Hallodapus rufescens (Burmeister)	-	VC14 (48)
Halticus apterus (Linnaeus)	_	VC14
Halticus luteicollis (Panzer)	_	VC14
Harpocera thoracica (Fallén)	VC13	VC14
Heterocordylus genistae (Scopoli)	-	VC14
Heterocordylus tibialis (Hahn)	_	VC14 VC14
Heterotoma planicornis (Pallas)	_	VC14 (18)
Leptopterna dolabrata (Linnaeus)	-	VC14 (18)
Leptopterna dotabrata (Enniacus) Leptopterna ferrugata (Fallén)	-	VC14 (18) VC14 (70)
Liocoris tripustulatus (Fabricius)	-	VC14 (70) VC14 (70)
•	VC13	
Lopus decolor (Fallén)	VC13	VC14
Lygocoris pabulinus (Linnaeus)	-	VC14 (70)
Lygocoris rugicollis (Fallén)	-	VC14
Lygus pratensis (Linnaeus)	- V(C12 (20)	VC14 (56)
Lygus rugulipennis Poppius	VC13 (20)	-
Macrolophus rubi Woodroffe [DELETED]	-	-
Macrotylus paykullii (Fallén)	-	VC14
Macrotylus solitarius (Meyer-Dür)	-	VC14
Malacocoris chlorizans (Panzer)	-	VC14 (70)
Mecomma ambulans (Fallén)	VC13	VC14
Mecomma dispar (Boheman) [NEW]	VC13 (9)	-
Megacoelum beckeri (Fieber)	-	VC14 (21)
Megacoelum infusum (Herrich-Schaeffer)	-	VC14

MIRIDAE (CONTINUED)		
Megaloceroea recticornis (Geoffroy)		VC14
•	VC13 (9)	VC14 VC14
Megalocoleus molliculus (Fallén)		VC14
Megalocoleus tanaceti (Fallén) [NEW]	VC13 (76) VC13	- VC14
Miridius quadrivirgatus (A. Costa)		
Miris striatus (Linnaeus)	VC13	VC14
Monalocoris filicis (Linnaeus)	VC13	VC14
Neolygus contaminatus (Fallén)	VC13	VC14
Neolygus viridis (Fallén)	-	VC14
Notostira elongata (Geoffroy)	VC13 (74)	VC14 (70)
Oncotylus viridiflavus (Goeze)	VC13	VC14
Orthocephalus coriaceus (Fabricius)	VC13 (4)	VC14
Orthocephalus saltator (Hahn)	VC13	VC14
Orthonotus rufifrons (Fallén)	-	VC14 (18)
Orthops basalis (A. Costa)	-	VC14 (62)
Orthops campestris (Linnaeus) [DELETED]	-	-
Orthotylus adenocarpi (Perris)	-	VC14
Orthotylus bilineatus (Fallén)	-	VC14
Orthotylus concolor (Kirschbaum) [DELETED]	-	-
Orthotylus ericetorum (Fallén)	-	VC14 (70)
Orthotylus flavinervis (Kirschbaum)	-	VC14
Orthotylus flavosparsus (C.R. Sahlberg)	VC13	VC14
Orthotylus marginalis Reuter	VC13	VC14
Orthotylus moncreaffi (Douglas & Scott)	VC13 (22)	VC14 (70)
Orthotylus nassatus (Fabricius)	-	VC14
Orthotylus ochrotrichus Fieber	-	VC14
Orthotylus prasinus (Fallén)	VC13 (4)	VC14
Orthotylus rubidus (Puton)	VC13	VC14
Orthotylus virescens (Douglas & Scott)	-	VC14
Pantilius tunicatus (Fabricius)	VC13	VC14
Phoenicocoris obscurellus (Fallén)	-	VC14
Phylus coryli (Linnaeus)	VC13	VC14
Phylus melanocephalus (Linnaeus)	VC13	VC14
Phytocoris dimidiatus Kirschbaum	VC13	VC14 VC14
Phytocoris insignis Reuter [DELETED]	V C13	-
Phytocoris longipennis Flor	VC13	VC14
•	VC13 VC13	VC14
Phytocoris populi (Linnaeus)	VC13	- VC14
Phytocoris reuteri Saunders	VC13	VC14 VC14
Phytocoris tiliae (Fabricius)	VC13	
Phytocoris ulmi (Linnaeus)	-	VC14 (70)
Phytocoris varipes Boheman	-	VC14 (70)
Pilophorus cinnamopterus (Kirschbaum)	-	VC14 (23)
Pilophorus clavatus (Linnaeus)	-	VC14
Pilophorus perplexus Douglas & Scott	-	VC14
Pinalitus cervinus (Herrich-Schaeffer)	VC13	VC14
Pinalitus rubricatus (Fallén)	VC13	VC14
Pithanus maerkelii (Herrich-Schaeffer)	VC13	VC14
Placochilus seladonicus (Fallén)	-	VC14 (37)
Plagiognathus arbustorum (Fabricius)	-	VC14 (70)
Plagiognathus chrysanthemi (Wolff)	-	VC14 (70)
Platycranus bicolor (Douglas & Scott)	VC13	VC14
Plesiodema pinetella (Zetterstedt)	VC13 (25)	VC14 (24)
Polymerus nigrita (Fallén)	VC13 (32)	-
Polymerus unifasciatus (Fabricius)	-	VC14
Psallodema fieberi (Fieber)	VC13 (9)	-

MIRIDAE (CONTINUED)		
Psallus ambiguus (Fallén)	VC13	VC14
Psallus falleni Reuter	-	VC14
Psallus haematodes (Gmelin)	-	VC14
Psallus lepidus Fieber	-	VC14
Psallus perrisi (Mulsant & Rey)	VC13 (30)	-
Psallus salicis (Kirschbaum)	VC13	VC14
Psallus varians (Herrich-Schaeffer)	_	VC14 (70)
Pseudoloxops coccineus (Meyer-Dür)	-	VC14
Rhabdomiris striatellus (Fabricius)	VC13	VC14
Salicarus roseri (Herrich-Schaeffer) [DELETED]	-	_
Stenodema calcarata (Fallén)	_	VC14 (70)
Stenodema holsata (Fabricius)	VC13	VC14
Stenodema laevigata (Linnaeus)	-	VC14 (70)
Stenodema trispinosa Reuter	_	VC14 (24)
Stenotus binotatus (Fabricius)	_	VC14 (18)
Strongylocoris leucocephalus (Linnaeus)	VC13	VC14 (29)
Systellonotus triguttatus (Linnaeus)	VC13	VC14
Teratocoris antennatus (Boheman)	-	VC14
Teratocoris saundersi Douglas & Scott	_	VC14 (18)
Tinicephalus hortulanus (Meyer-Dür)	VC13	-
Trigonotylus caelestialium (Kirkaldy)	VC13 (46)	_
Trigonotylus psammaecolor Reuter	VC13 (26)	VC14 (18)
Trigonotylus ruficornis (Geoffroy) [NEW]	VC13 (25)	-
Tuponia brevirostris Reuter	VC13 (58)	_
Tuponia mixticolor (A. Costa)	VC13 (43)	_
Tytthus pygmaeus (Zetterstedt)	-	VC14
Tymus pygmucus (Zettersteat)		V C 14
CERATOCOMBIDAE		
Ceratocombus coleoptratus (Zetterstedt)	-	VC14
SALDIDAE		
Chartoscirta cincta (Herrich-Schaeffer)	VC13	VC14
Chartoscirta cocksii (Curtis)	-	VC14
Halosalda lateralis (Fallén)	VC13	VC14
Salda littoralis (Linnaeus)	-	VC14
Saldula orthochila (Fieber)	VC13	_
Saldula palustris (Douglas) [NEW]	VC13 (76)	_
Saldula pilosella (Thomson)	VC13	VC14
Saldula saltatoria (Linnaeus)	VC13	VC14
		, 52.
MESOVELIIDAE		
Mesovelia furcata Mulsant & Rey	VC13 (64)	VC14
HEBRIDAE		
Hebrus pusillus (Fallén)	_	VC14
Tieorius pusuius (Laileir)		, 611
HYDROMETRIDAE		
Hydrometra gracilenta Horváth	-	VC14 (64)
Hydrometra stagnorum (Linnaeus)	VC13	VC14
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VELIIDAE		
Microvelia pygmaea (Dufour)	VC13 (64)	VC14 (64)
Microvelia reticulata (Burmeister)	VC13 (64)	VC14 (64)
Velia caprai Tamanini	VC13 (64)	VC14 (64)

GERRIDAE		
		VC14
Aquarius najas (De Geer)	- NG12 (64)	
Aquarius paludum (Fabricius)	VC13 (64)	VC14
Gerris argentatus Schummel	VC13 (64)	VC14
Gerris gibbifer Schummel	VC13	VC14
Gerris lacustris (Linnaeus)	VC13 (64)	VC14 (64)
Gerris odontogaster (Zetterstedt)	VC13 (64)	VC14
Gerris thoracicus Schummel	VC13	VC14
Limnoporus rufoscutellatus (Latreille)	-	VC14
Nepidae		
Nepa cinerea Linnaeus	VC13 (64)	VC14 (64)
Ranatra linearis (Linnaeus)	VC13 (04)	VC14 (04)
Randira unearis (Elimacus)	VCIS	VC14
NAUCORIDAE		
Ilyocoris cimicoides (Linnaeus)	VC13 (64)	VC14 (64)
APHELOCHEIRIDAE		
Aphelocheirus aestivalis (Fabricius)	VC13 (64)	VC14 (64)
,	,	,
NOTONECTIDAE		
Notonecta glauca Linnaeus	VC13 (64)	VC14 (64)
Notonecta maculata Fabricius	VC13 (64)	VC14 (64)
Notonecta obliqua Thunberg	VC13 (64)	VC14 (64)
Notonecta viridis Delcourt	VC13 (64)	VC14 (64)
PLEIDAE		
	11010	VC14
Piea minutissima Leach	V('13	V( 14
Plea minutissima Leach	VC13	VC14
	VC13	VC14
CORIXIDAE	VC13	
CORIXIDAE  Arctocorisa germari (Fieber)	VC13	VC14 (57)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)	- -	VC14 (57) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach	- - -	VC14 (57)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson	VC13 VC13 (64)	VC14 (57) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber	- - - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)	- - -	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)	- - - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)	- - - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 VC14 (60)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)	- - - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)	- - - VC13 (64) - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 (64) VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 (64) VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 (64) VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (60) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)	- VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 VC13 (64) VC13	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14  VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 VC13 (64) VC13 VC13 (64)	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara dorsalis (Leach)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 VC13 (64) VC13 - VC13 (64) VC13	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara falleni (Fieber)	- VC13 (64)	VC14 (57) VC14 (64) VC14 (64) 
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara falleni (Fieber)  Sigara fossarum (Leach)	- - - VC13 (64) - VC13 (64) - VC13 (64) - VC13 (64) VC13 VC13 (64) VC13 - VC13 (64) VC13	VC14 (57) VC14 (64) VC14 (64) - VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa sahlbergi (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara falleni (Fieber)  Sigara fossarum (Leach)  Sigara iactans Jansson	- VC13 (64) VC13 VC13 (64) VC13 VC13 (64) VC13 - VC13 (64) VC13 - VC13 (64)	VC14 (57) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64) VC14 VC14 (64)
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara fossarum (Leach)  Sigara iactans Jansson  Sigara lateralis (Leach)	- VC13 (64) VC13 - VC13 (64) VC13 - VC13 (64) VC13 - VC13 (64) - VC13 - VC13 (64) - VC13 - VC13 (64) - VC13	VC14 (57) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 VC14 VC14 (64) VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fabricius)  Cymatia rogenhoferi (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara fossarum (Leach)  Sigara iactans Jansson  Sigara limitata (Fieber)	- VC13 (64) - VC13 VC13 (64) - VC13 VC13 (64) - VC13 VC13	VC14 (57) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14
CORIXIDAE  Arctocorisa germari (Fieber)  Callicorixa praeusta (Fieber)  Corixa affinis Leach  Corixa dentipes Thomson  Corixa panzeri Fieber  Corixa punctata (Illiger)  Cymatia bonsdorffii (C.R. Sahlberg)  Cymatia coleoptrata (Fieber)  Hesperocorixa castanea (Thomson)  Hesperocorixa linnaei (Fieber)  Hesperocorixa moesta (Fieber)  Hesperocorixa sahlbergi (Fieber)  Micronecta poweri (Douglas & Scott)  Micronecta scholtzi (Fieber)  Paracorixa concinna (Fieber)  Sigara distincta (Fieber)  Sigara fossarum (Leach)  Sigara iactans Jansson  Sigara lateralis (Leach)	- VC13 (64) VC13 - VC13 (64) VC13 - VC13 (64) VC13 - VC13 (64) - VC13 - VC13 (64) - VC13 - VC13 (64) - VC13	VC14 (57) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (64) VC14 (60) VC14 (64) VC14 VC14 (64) VC14 VC14 VC14 VC14 (64) VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14 VC14

### CORIXIDAE (CONTINUED)

Sigara selecta (Fieber)	VC13 (64)	VC14 (64)
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Sigara semistriata (Fieber) VC13 -

Sigara stagnalis (Leach) VC13 (64) VC14 (64)
Sigara striata (Linnaeus) - VC14 (64)
Sigara venusta (Douglas & Scott) - VC14 (64)

TABLE 1. The references relating to the numbers in the list of divided records.

(1)	Butler (1923)	(40)	Hodge (1985)
(2)	Lyons (2016)	(41)	Kirby (1985)
(3)	Campbell-Taylor (1946)	(42)	Porter (1985)
(4)	Pickard-Cambridge (1946)	(43)	Hodge (1986)
(5)	Judd (2011)	(44)	Dolling (1999)
(6)	Jones (2004)	(45)	Nau & Brooke (2006)
(7)	Hickin (1950)	(46)	Allen (1993)
(8)	Morris (1971)	(47)	Hodge (1991)
(9)	Collett (1933)	(48)	Hodge (1994)
(10)	Day (1932)	(49)	Hodge & Porter (1997)
(11)	Hodge (2003)	(50)	Porter (1997)
(12)	Hodge (1993)	(51)	Alexander (1998)
(13)	Bedwell (1934)	(52)	Hodge (1998)
(14)	Bedwell (1945)	(53)	Hodge (2002)
(15)	Jones (1989)	(54)	Lees (1995)
(16)	Britten (1939)	(55)	Hodge (2004)
(17)	Massee (1952c)	(56)	Hodge (2006)
(18)	Collett (1936)	(57)	Hodge (2007)
(19)	Alexander (2001)	(58)	Denton (2004a)
(20)	Leston (1951)	(59)	Malumphy et al. (2008)
(21)	Massee (1952b)	(60)	Brooke (2009)
(22)	Woodroffe (1958)	(61)	Ryan (2011)
(23)	Massee (1952a)	(62)	Hodge (2013)
(24)	Massee (1953)	(63)	Ryan (2013b)
(25)	Hodge (1992)	(64)	Huxley (2003)
(26)	Woodroffe (1959c)	(65)	Bantock (2014a)
(27)	Le Quesne (1955)	(66)	Bantock (2014b)
(28)	Scudder (1957a)	(67)	Denton (2004b)
(29)	Scudder (1957b)	(68)	Whitehead (2008)
(30)	Massee (1959)	(69)	Alexander (2008)
(31)	Woodroffe (1959a)	(70)	Butler (1906)
(32)	Ryle (1960)	(71)	Bloomfield (1912)
(33)	Butler (1921)	(72)	Moon (1937)
(34)	Woodroffe (1959b)	(73)	Roper (1994)
(35)	Woodroffe (1960)	(74)	Ryan (2015b)
(36)	Jones (1977)	(75)	Ryan (2015c)
(37)	Hodge (1990)	(76)	Denton (2017)
(38)	Hodge (1984)	(77)	Ryan (2018c)
(39)	Jones (1984)		

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# A SEASONAL DISTRIBUTION OF THE ADULT HEMIPTERA-HETEROPTERA OF THE BRITISH ISLES

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#### Introduction

Whereas the geographical (county) distribution of Butler (1923) has been kept up to date over the decades (Bedwell, 1945; Massee, 1955; Ryan, 2014), the seasonal distribution of this work has not. In fact, I have found only one published article in the entomological literature that refers to Butler's seasonal distribution tables (Bedwell, 1924). The present article therefore begins the process of bringing the seasonal distribution of the British Hemiptera-Heteroptera up to date.

Butler's seasonal data are based upon recording units of whole months, so there are a maximum of twelve records per species for the entire year. I take the view that this is too coarse a level of granularity to be useful, and here substitute whole months with sixths of months, or 'heximonths', thereby increasing the maximum number of records from twelve to 72. The first five heximonths are each five days in duration (1st to 25th of the month), and the final heximonth is three, four, five or six days long, depending upon the month and year.

I have chosen to encode heximonths with a number representing the month, 1 (January) to 12 (December) followed by upper case letters representing the sixth part of that month (A to F). Hence, 6A is the period 1st to 5th June, 7C represents 11th to 15th July, and 8F corresponds to 26th to 31st August. The use of heximonths lends itself readily to English expressions for parts of months, as illustrated below for the month of May.

5A: the beginning of May
5AB: early May
5CD: the middle of May
5ABC: the first half of May
5DEF: the second half of May

5EF: late May

Obviously, the use of such expressions in the interpretation of records would not be valid, as the writer may not be using the precise definitions suggested above. However, the above expressions do provide a ready means of converting the heximonth codes into English.

Although the use of heximonths greatly improves the resolution of the seasonal distribution, it does also mean that Butler's tabulated monthly records have to be discarded, unless they can be traced to a more precise date. Since, in the main, this is not possible the new seasonal distribution will have to be compiled afresh from new data. This will be a long process, and the distribution presented here is provisional only, the data having been extracted from a single source, Groves (1964-1986). This monumental work provides a good initial seasonal distribution for the species within its compass, that is species residing in the London area, excluding those recorded as new to Britain after the completion of Groves' work. The distribution will be updated incrementally during the species reviews, which will be presented in this journal from Volume 7 onwards. The more limited data available on the egg and nymph stages will also be gathered at this time.

Care needs to be exercised in the interpretation of the seasonal data. Very few published records concern themselves primarily with the date of occurrence, and the dates given for the records have to be regarded as being of incidental importance. Consequently, it is possible that date information is more prone to error and less likely to be the subject of a subsequent printed correction, if erroneous. Although Groves was most thorough in his work, including a lengthy section on corrigenda, his sources may not have been as accurate. I therefore believe that the seasonal data presented here, and in subsequent updates to the distribution, should be regarded as the starting point for specific field work aimed at confirming the true seasonal distribution of the British Hemiptera-Heteroptera.

# The provisional seasonal distribution

Aradidae
Aneurus avenius (Dufour) 13a45ab6-b789-bf101112a
Aneurus laevis (Fabricius) 1-B24aDE-5aD6c78E-9-B10F11a12
Aradus aterrimus Fieber  12345
Aradus cinnamomeus Panzer 1-B2F34-BC5-B6C7-BCF8F9ABC101112
Aradus corticalis (Linnaeus)  12101112
Aradus depressus (Fabricius)  12EF34-BEF5-BCDEF6a-CD-F78a9D101112
ACANTHOSOMATIDAE  Acanthosoma haemorrhoidale (Linnaeus)  12e-34-b5abcdef6ae-78cd-f9a-cdef10abcd11a-c12
Cyphostethus tristriatus (Fabricius)  1a2
Elasmostethus interstinctus (Linnaeus)
12345abcde-6a-cd-f7cf8c-ef9ab-de-10ab-d1112  Elasmucha grisea (Linnaeus) 123-be-4aef5-bcde-6abcd-f7ab-d8-bcdef9abcd10ae-11-b12
CYDNIDAE  Adomerus biguttatus (Linnaeus)  1234c56789F1011F12  Canthophorus impressus (Horváth)  1-B234-B5a6789D-F1011F12
Legnotus limbosus (Geoffroy) 12A345-B-DEF6ABC7AF89D101112
Legnotus picipes (Fallén) 1345abcd6a78910a1112
Sehirus luctuosus Mulsant & Rey           12-B345-BC-E-6-B7D-F8AF9-BF101112
Tritomegas bicolor (Linnaeus) 13F4-BCDEF5ABCDEF6ABCDE-7DEF8CF9ABCD1011a-C12
Thyreocoridae  Thyreocoris scarabaeoides (Linnaeus)  1354abc-ef5cd-f678d9cf10a1112
Scutelleridae
Eurygaster maura (Linnaeus) 12345E-67AE-8D-F9E-101112
Eurygaster testudinaria (Geoffroy) 123456a78910c1112
PENTATOMIDAE <i>Aelia acuminata</i> (Linnaeus)  12345def6af7abc8c-e-9ab101112
Dolycoris baccarum (Linnaeus) 1345c6abe-7ef8adef9ad10c1112
Eurydema dominulus (Scopoli)  12345E-678910c1112
Eurydema oleracea (Linnaeus) 1234E-5-BC-EF6a-CF7a-CF89ab101112

PENTATOMIDAE (CONTINUED)
Eysarcoris aeneus (Scopoli) 123456-B789101112
Eysarcoris venustissimus (Schrank) 1234c-e-5def6abcdef7abcdef8-b-d-f9cde-101112
Neottiglossa pusilla (Gmelin) 123E-45F6-BCD7ABE-8CF9ABCF101112
Palomena prasina (Linnaeus) 12345ABCD-F6AB-D-F7-B8D-F9A-CDEF10ABCD11D12
Pentatoma rufipes (Linnaeus)  123456
Peribalus strictus (Fabricius)
12345F6p789101112  Picromerus bidens (Linnaeus)
1234567cd-f8a-cd-f9abcdef10a-cde-1112 Piezodorus lituratus (Fabricius)
12b-3e-4de-5-bcdef6-bcd78-b-d-f9ad-f10abcd1112 Podops inunctus (Fabricius)
12a3cf4abf5ab-def6ad7d-f8abe-9cde-10a-c-e-11abf12-b Rhacognathus punctatus (Linnaeus)
12345abc6a7cd8ad9a101112 Sciocoris cursitans (Fabricius)
12A34cde-5-BF6-B-de-7d-F8AF9c1012 Troilus luridus (Fabricius)
12-b-D3
124aD5ab6-bcF7D-F8D-F9a-c10DE-1112
Coreidae
Bathysolen nubilus (Fallén) 1234-в567-вег8ғ9а101112
Ceraleptus lividus Stein 1234E-56AE-78E-9ABC10-B-D11A12
Coreus marginatus (Linnaeus) 12345-BC-E-6AB7ABE-8-BEF9-BEF10A1112
Coriomeris denticulatus (Scopoli) 123a4-b-D5abc-ef6abcd-f7-bcf8-bcde-9abc10a1112
Gonocerus acuteangulatus (Goeze)  12345A-c-E-67-B8F9cd10d11F12
Spathocera dalmanii (Schilling) 12345
Syromastus rhombeus (Linnaeus)
1234E-5-B6A7E-8-BF9F10A11F12F
ALYDIDAE  Alydus calcaratus (Linnaeus)
12345D-F6-B7ABCD8-BC-EF9-B1011A12
RHOPALIDAE
<i>Liorhyssus hyalinus</i> (Fabricius) 123456789c101112
Myrmus miriformis (Fallén) 123456cd7abcdef8abcde-9abcdef10a1112
Rhopalus maculatus (Fieber) 12345p-F6p-78-B-D9-B10p11c12
Rhopalus parumpunctatus Schilling 1234567-BEF8CD-F9AB-D101112
Rhopalus rufus Schilling 134c5-B6789ABC101112

RHOPALIDAE (CONTINUED)  Rhopalus subrufus (Gmelin)  1234de-5f6ade-7d-f8de-9abc-e-10ab1112
Stenocephalidae <i>Dicranocephalus medius</i> (Mulsant & Rey)  123a45-в68a9101112
Lygaeidae Acompus rufipes (Wolff)
1234589101112 Chilacis typhae (Perris)
1234D-5E-67F8-B-DE-9D-F101112  Cymus aurescens Distant 1345c6F789101112
Cymus claviculus (Fallén) 13af4e-5-b-de-6abf7-bcdef8-b-def9ab-def10ef11de-12
Cymus glandicolor Hahn 13
Cymus melanocephalus Fieber 1-b23F45cd-F6-bF7abc-eF8ab-d-F9abcd-F10e-1112
Drymus brunneus (R.F. Sahlberg) 1-B2E-3-BCF4AD-F5CD-F6ADE-7EF8ABCD9-B-D10CD-F11C12C
Drymus latus Douglas & Scott 12E-3456789c10a1112
Drymus pilicornis (Mulsant & Rey) 124a5678be-9af10ab-d1112
Drymus pilipes Fieber 13456789-вс-E-101112  Drymus ryeii Douglas & Scott
12c3-bc4-bcd5-b-def6c78910ae-1112  Drymus sylvaticus (Fabricius)
1-bef2a-cd-f3a-cde-4abcdef5abcde-6abcd-f7a8abcdef9abc-ef10a-cdef11ade-12c  Eremocoris podagricus (Fabricius)
13a4-b-def5abcf6f789c-e-10c1112 Gastrodes grossipes (De Geer)
1a23-bef4abc5cd-f6cf7-b-d8-bef9cf10a11d12  Graptopeltus lynceus (Fabricius)  12a34db5e6789101112
12н101112 Henestaris halophilus (Burmeister) 123456789-в101112
Heterogaster artemisiae Schilling 134567а8-в-р9а101112
Heterogaster urticae (Fabricius) 134a5-b-d-f6cdef7a-c-e-8ad-f9abcdef10a-c-e-11e-12ad-
Ischnocoris angustulus (Boheman) 12a3e-45d67F8c-e-9abcdef10a1112abcde
Ischnodemus sabuleti (Fallén) 1e-2a3-b-de-4def5abcdef6-b-d-f7-b-def8-bc-e-9cf10f1112
Kleidocerys ericae (Horváth) 13E-45EF6-BCD-F7F8ADEF9ADE-101112
Kleidocerys resedae (Panzer) 134ab-de-5def6a-cdef7-be-8abc9abcdef10cf11e-12 Lawrendar pieca (Flor)
Lamproplax picea (Flor) 13456789p10p1112 Lasiosomus enervis (Herrich-Schaeffer)
12101112 <i>Macrodema microptera</i> (Curtis)
12a3aCpdan5a-cnep67c8-pcnep9-p-n-p101112

LYGAEIDAE (CONTINUED)  Megalonotus antennatus (Schilling)
12AE-3456789101112 <i>Megalonotus dilatatus</i> (Herrich-Schaeffer)
123a4F5abe-6abe-78c-e-9a101112  Metopoplax ditomoides (A. Costa)
123456789D101112
Nysius ericae (Schilling) 1235678p-9101112
Nysius helveticus (Herrich-Schaeffer) 1345678E-9-BC101112
Pachybrachius fracticollis (Schilling) 131112
Peritrechus geniculatus (Hahn)
123a4p-F5-Bc6E-78a9-B-p10E-1112 Peritrechus lundii (Gmelin)
123E-4abc5-bcd-f6789-bcd-f10af1112Plinthisus brevipennis (Latreille)
123c45-B6ADE-7E-8D-F9101112 Raglius alboacuminatus (Goeze)
12310a1112 Rhyparochromus pini (Linnaeus)
1-BF23-B4E-5EF6-B78C9ABCD10C1112 Scolopostethus affinis (Schilling)
1-be-2cd-f3abcde-4-bef5-b-def6abcdef7adef8d-f9a-cdef10af11e-12cd Scolopostethus decoratus (Hahn)
12a3cd4a-c-ef5cf67-b8a-c-ef9abcde-10a-c-e-11a12c-e- Scolopostethus grandis Horváth
12345-в-D6E-78E-91011E-12 Scolopostethus pictus (Schilling)
12356 <sub>D</sub> 789101112 Scolopostethus thomsoni Reuter
123F4D-F5a-CD6aEF7aBCD8aBC-EF9aBC10a1112 Stygnocoris fuligineus (Geoffroy)
1de-2F3abc-ef4a-cd5-b-def6-b7aef8-bef9ad-f10e-11a12f Stygnocoris rusticus (Fallén)
12-B3c4E-567D-F8-BC-EF9ABCDEF10A-C-E-1112 Stygnocoris sabulosus (Schilling)
12A3A4E-5-B-D6-BEF7DEF8ABCD-F9ABCDEF10ABCDEF11AE-12C Taphropeltus contractus (Herrich-Schaeffer)
12af3a4cdef5abcd6a7abf8-bef9ab-d-f10-b-d11e-12-b-d
Taphropeltus hamulatus (Thomson)         125-B678E-9c1012
Trapezonotus arenarius (Linnaeus) 1234p567A8A9101112
Trapezonotus dispar Stål 12345-в67c-е-8аег9c10а1112
Tropistethus holosericus (Scholtz) 123-B4-BCD5-BC-EF678AD9A-CF10-BE-11E-12
BERYTIDAE
Berytinus clavipes (Fabricius) 134a-c5aef6-b7b-8cd-f9c-e-101112
Berytinus crassipes (Herrich-Schaeffer) 123
Berytinus minor (Herrich-Schaeffer) 1c23cd-f4-cd-5abcdef6c-e-7a8abc-e-9abc10a11ae-12
Berytinus montivagus (Meyer-Dür)
12a345af67abc8-bcd9a-c10a1112

BERYTIDAE (CONTINUED)
Berytinus signoreti (Fieber)
123aF45aEF6ab-d7c-E-8-bcF9abcd-F10a11a12  Gampsocoris punctipes (Germar)
1234p-f5p-f6-b7E-8A-CDEF9ADE-101112D  Metatropis rufescens (Herrich-Schaeffer)
1234c5
PIESMATIDAE <i>Parapiesma quadratum</i> (Fieber)  123c45A-cd6-b-d7def8-bf9-bc10A1112
Piesma maculatum (Laporte) 12-BF3A4cd5-Bcd6ABcd7EF8-BF9-Bc-E-10-B11E-12E-
TINICIDAE
TINGIDAE  **Acalypta carinata* (Panzer)  12345-bcde-6-bcf7d89c10-b1112
Acalypta parvula (Fallén)
12e-3-b-de-4abc5f6a7f8def9abcdef10ad1112d Acalypta platycheila (Fieber)
1235Е-6789101112 Agramma laetum (Fallén)
123 <u>E-4</u> 5 <u>F</u> 6-в789c101112 Campylosteira verna (Fallén)
12a3c-E-4abcdE-5f678D-9-b10-b1112D
Catoplatus fabricii (Stål) 124-B5cF678DE-9-B-DEF10-Bc1112
<i>Derephysia foliacea</i> (Fallén) 1E-23-B4567ADEF8ABCDEF9-BCD10-B-D1112
Dictyla convergens (Herrich-Schaeffer) 1234D5
Dictyonota fuliginosa A. Costa  1234567-BEF8-BC9-B101112
Dictyonota strichnocera Fieber
13456E-7-BCDEF8ABCD-F9ADE-101112 <i>Kalama tricornis</i> (Schrank)
12101112 Oncochila simplex (Herrich-Schaeffer)
12345678 <sub>A</sub> 9101112  Physatocheila dumetorum (Herrich-Schaeffer)
1234CD5F6AB7E-89-BC-E-101112
Physatocheila smreczynskii China 121012
Stephanitis rhododrendri Horváth 1234567cd-f8ab-de-9d101112
Tingis ampliata (Herrich-Schaeffer) 12DE-3A-C4ADEF5-BCDEF6ABCDEF7ABC-EF8ABC-EF9AB10-B-DEF11-B12
Tingis cardui (Linnaeus) 1
Tingis reticulata Herrich-Schaeffer  1234E-5-B-D6-BE-7E-8A9D10A11E-12
REDUVIIDAE  Empicoris baerensprungi (Dohrn)
12345678F9101112
Empicoris culiciformis (De Geer) 1-B-D2E-34-B5-c-E-6c-E-7D8-B-DEF9cD-F10A-c11AB12D

Ri	EDUVIIDAE (CONTINUED)  Empicoris vagabundus (Linnaeus)  18abcdef9abcdef10c1112
	Reduvius personatus (Linnaeus) 1234E-56EF7AD-891012
NΔ	ABIDAE <i>Himacerus apterus</i> (Fabricius)  123456E-7E-8abcdef9abcdef10abc-E-1112
	Himacerus boops (Schiødte)  123456
	Himacerus major (A. Costa) 13-b4567a-cdef8-bcdef9abcdef10a-cde-11ad12
	Himacerus mirmicoides (O. Costa) 13D4CD-F5-BCD-F6-BC7EF8aBCDEF9aBCDEF10aBCDE-11a12-B
	Nabis brevis Scholtz 13456789F1012
	Nabis ericetorum Scholtz 1
	Nabis ferus (Linnaeus) 1cd2af3-bef4ae-5cf6-bf7a-cd8-bcd-f9abcdef10a-cde-11de-12
	Nabis flavomarginatus Scholtz 1345657abcdef8abcdef9abcdef101112
	Nabis limbatus Dahlbom 13D-456F7a-cdef8abcdef9abcdef10abcde-1112
	Nabis rugosus (Linnaeus) 1aef23c4abcde-5abcdef6abcdef7a-cd-f8abcdef9abcdef10abcde-11a12
Ai	NTHOCORIDAE
	Acompocoris alpinus Reuter
	12345ғ67E-8-вғ9Е-101112 Acompocoris pygmaeus (Fallén)
	12356-BF7abcde-8abcdef9a-cd-f10abe-1112 Anthocoris butleri Le Quesne
	1235555
	1-b2-cf3abcde-4abcdef5abcdef6abc-e-7abcdef8abcde-9abcde-10ab-de-11-bc12a Anthocoris gallarumulmi (De Geer)
	1234ad-f5-bc-ef6f7abcdef8cdef9abc-e-101112f Anthocoris limbatus Fieber
	1234567D-8F9AEF101112 <i>Anthocoris nemoralis</i> (Fabricius)
	1a53-bcde-4abcdef5abc-ef6cdef7abcdef8abcdef9a-cd10abcf11-b-d12 Anthocoris nemorum (Linnaeus)
	1e-2af3def4abcdef5abcdef6ab-def7abcdef8abcd-f9abcdef10ab-d11a-c-e-12c-e- Anthocoris sarothamni Douglas & Scott
	1235-bc-e-6cf7abc-ef89101112 <i>Anthocoris simulans</i> Reuter
	1234567c8-B9A-CD101112Cardiastethus fasciiventris (Garbiglietti)
	12345ab6a78F9a10a1112  Dufouriellus ater (Dufour)
	123-B4A-c5A678F9AB-D10c11A12  Elatophilus nigricornis (Zetterstedt)
	123456EF7A8E-9101112 <i>Lyctocoris campestris</i> (Fabricius)
	15ab-def6-bcf7a-cde-8-bef9abcde-10a-c11de-12F  Orius laevigatus (Fieber)
	1234569ав10а1112

ANTHOCORIDAE (CONTINUED)	
Orius majusculus (Reuter)	
	-6A-C7A-CD-F8-BC-EF9AD10A1112
Orius niger (Wolff)	-6D7AEF8ABCF9-BCD10A1112
Temnostethus gracilis Horváth	
	-6-в7ае-8с9-в101112
Tetraphleps bicuspis (Herrich-Schaef	ter) -6a7ab-d8-bcd-f9-bc-e-10abc-e-1112
<i>Xylocoridea brevipennis</i> Reuter	
15	-678910F1112
Xylocoris cursitans (Fallén)	-6c-ef7a-cde-8abcd-f9c-ef10a-c1112
Xylocoris formicetorum (Boheman)	-0C-EF /A-CDE-OABCD-F 9C-EFIOA-CIIIZ
	-67D8F9-B10D1112
Xylocoris galactinus (Fieber)	
1234C5	-6-B-D-F7DEF8-BCD-F9A-C-E-10AB1112
CIMICIDAE	
Cimex lectularius Linnaeus	
	-6A-C78C9E-1011A12
Cimex pipistrelli Jenyns	-67ғ891011-в12
Oeciacus hirundinis (Lamarck)	
15	-6-в789101112
Michophyland	
MICROPHYSIDAE  Loricula coleoptrata (Fallén)	
	-6ег7-в89101112
Loricula distinguenda (Reuter)	
	-6c-E-7-BCD8A-CF9101112
Loricula elegantula (Baerensprung)	-6
Loricula exilis (Fallén)	
	-678-в9с101112
Loricula pselaphiformis Curtis	-6cd-f7ae-8-b9101112
12343	-0CD-F /AE-0-B91U1112
MIRIDAE	
Acetropis gimmerthalii (Flor)	
	-6ABCDEF7ABCDEF8E-9101112
Adelphocoris lineolatus (Goeze)	-67-BCDEF8aBCDEF9aBCD-F10aB1112
Adelphocoris ticinensis (Meyer-Dür)	
	-6F78AB-DEF9-BC101112
Alloeotomus gothicus (Fallén)	-67DE-8-B-D9CDEF101112
Amblytylus brevicollis Fieber	-0,be-0-B-D9CDEr101112
15	-6D7CDEF8-B9101112
Amblytylus delicatus (Perris)	
Amblytylus nasutus (Kirschbaum)	-67-в89101112
15	-6DEF7ABCDEF8-B9101112
Apolygus limbatus (Fallén)	
	-678c9101112
Apolygus lucorum (Meyer-Dür) 15	-6-be-7abcdef8abcdef9a-c10a1112
Apolygus spinolae (Meyer-Dür)	
	-67abcdef8abcde-910ab1112

	CONTINUED) ema obsoleta (Fieber)	
1	23456c-ef7a-cdef8abcf9d1011 otomus magnicornis (Fallén)	-12
1	23456EF7A-CD-F8ABCDE-9ADEF1011 otomus mali (Meyer-Dür)	-12
1	23456cdef7abcde-8-b9f1011	-12
	ridopterus angulatus (Fallén) 23456b-F7abcdef8abcdef9abcdef10abf11	-12
	ridopterus diaphanus (Kirschbaum) 234567cdef8abcd-f9a-cd1011	-12
Brachy	arthrum limitatum Fieber23456E-7AB-D-891011	
Bryoco	ris pteridis (Fallén)	
	234567ABCDE-8D9CF10A11 ris roseomaculatus (De Geer)	-12
	23456def7abcdef8abcdef9-b1011	-12
1	23456EF7-BCDEF8ABCD91011	-12
1	lomma verbasci (Meyer-Dür)23456p7abcf8-bcdef9a-cd1011	-12
	loneura virgula (Herrich-Schaeffer) 23456F7abcdef8abcdef9c1011	-12
	les flavomarginatus (Donovan) 23456-BC7AD891011	-12
Capsod	les gothicus (Linnaeus)23456E-7ABCD-F8A-C9F1011	
Capsus	ater (Linnaeus)	
Charag	23456abcdef7abcdef8abcde-9a1011 gochilus gyllenhalii (Fallén)	
	23d-f4a5aef6-bcde-7abc-ef8abcdef9adef1011 vdatus pullus (Reuter)	-12
1	2345f6-b7ab-d-f8abcdef9-b1011 vdatus saltitans (Fallén)	-12
1	2345	-12
	otomus fulvomaculatus (De Geer) 2345f6cdef7abcdef8c91011	-12
	otomus norwegicus (Gmelin) 23456-bcdef7abcdef8abcd-f9abcd1011	-12
	idolon salicellum (Herrich-Schaeffer)23456E-7cdef8abcdef9-bc1011	-12
Conoste	ethus griseus Douglas & Scott 231011	
Conoste	ethus roseus (Fallén)	
Cylleco	234р56-всре-7891011 oris histrionius (Linnaeus)	
	23a45f6abcdef7abcdef891011 hinus caricis (Fallén)	-12
1	234567CDEF8ABCDE-9AB10-B11	-12
1	ocoris lutescens (Schilling)2a-cf3a-cd4ab5a-c-ef6-bcde-7a-cdef8abcdef9abcdef10-bc-ef11-b	-12ғ
	ocoris olivaceus (Fabricius) 23456cdef7abcd8-b91011	-12
	ocoris ruber (Linnaeus) 2345e-6d7abcdef8abcdef9a-c-e-1011	-12
Deraeo	ocoris scutellaris (Fabricius)	
Dichro	oscytus gustavi Josifov	
1	23456cp7c-ef891011	-12

MIRIDAE (CONTINUED)  Dichrooscytus rufipennis (Fallén)	
131212	
Dicyphus annulatus (Wolff) 12345E-6c-E-7a-c8EF9ab-d10-b1112	
Dicyphus constrictus (Boheman) 1234567E-8E-9E-10AE-1112	
Dicyphus epilobii Reuter 123456f7-bcdef8abc-ef9abc-ef101112	
Dicyphus errans (Wolff) 12345b-f6cdef7ab-def8ab-def9ab-def10abcdef1112	
Dicyphus globulifer (Fallén)	
1234p5ap6ape-7abc-ef8abcdef9cf101112 Dicyphus pallicornis (Fieber)	
12	
1234de-5abcdef6d-f7abcde-8abcde-9abcde-10c-e-1112 Dryophilocoris flavoquadrimaculatus (De Geer)	
12101112 Fieberocapsus flaveolus (Reuter)	
124567р-ғ8авср9ав-р101112 Globiceps flavomaculatus (Fabricius)	
1234567F8F9101112	
Globiceps fulvicollis Jakovlev 13456c7c8A9101112	
Globiceps juniperi Reuter 123456р7-вс89101112	
Grypocoris stysi (Wagner) 123456-bcdef7abcdef8abc9e-101112	
Hallodapus montandoni Reuter 123456	
Hallodapus rufescens (Burmeister) 123456p7cdef8c-e-9101112	
Halticus apterus (Linnaeus) 1234567EF8-B-DEF9101112	
Halticus luteicollis (Panzer)	
12101112 Harpocera thoracica (Fallén)	
12101112 <i>Heterocordylus genistae</i> (Scopoli)	
123456ғ7-в е ғ 89101112 Heterocordylus tibialis (Hahn)	
12101112  Heterotoma planicornis (Pallas)	
123F456F7abcdef8abcdef9ae-101112	
Hoplomachus thunbergii (Fallén) 123456-B-DEF7ABCD89101112	
Leptopterna dolabrata (Linnaeus)           12345	
Leptopterna ferrugata (Fallén)           12345-c6cdef7abcde-89101112	
Liocoris tripustulatus (Fabricius) 1A2-B3A-C-E-4AB-DEF5ABCDEF6A-CDEF7ABCDEF8ABCDEF9ABCDEF10AD-F1112	
Lopus decolor (Fallén) 123456E-7-BCDEF8AB-D9-B101112	
Lygocoris pabulinus (Linnaeus) 12345e-6abcdef7ab-def8abcdef9abcdef10c1112	
Lygocoris rugicollis (Fallén)	
12345E-6-B-DEF7abcdeF8cF9-B101112	

MIRIDAE (CONTINUED)	
Lygus maritimus Wagner	
12345AE-6D7AD  Lygus pratensis (Linnaeus)  1-B234567	
Lygus rugulipennis Poppius 1-b-02aef3abcd4cd5-bcf6def7abcd	
Macrolophus pygmaeus (Rambur) 12345-c67-BCD	
Macrolophus rubi Woodroffe  1234567	
Macrotylus paykullii (Fallén) 12345е-6е-7-вср	
Macrotylus solitarius (Meyer-Dür)  123456c-e-7ab-p	
Malacocoris chlorizans (Panzer)  123456c7	
Mecomma ambulans (Fallén)	
16с- <b>е</b> ғ7авср <i>Megacoelum beckeri</i> (Fieber) 1234567	
Megacoelum infusum (Herrich-Schaeffer)	
1 3 4 5 6 7-вс- Megaloceroea recticornis (Geoffroy)	
125-bc6F7abcd  Megalocoleus molliculus (Fallén)  123456F7abcd	
Megalocoleus tanaceti (Fallén)	
123456F7cd Miris striatus (Linnaeus) 12345EF6ABCD7A	
Monalocoris filicis (Linnaeus)  123455a-cd6-bcdef7ad	
Myrmecoris gracilis (R.F. Sahlberg) 16	
Neolygus contaminatus (Fallén)  123456abcdef7abcd	
Neolygus populi (Leston) 123456-c-e-7ab	
Neolygus viridis (Fallén) 123456	
Notostira elongata (Geoffroy)  1a-c23d4-b-de-5abcd-f6cdef7abcd	
Oncotylus viridiflavus (Goeze) 156	
Orthocephalus coriaceus (Fabricius) 16-BEF7ABC-	
Orthocephalus saltator (Hahn) 123456EF7AD	
Orthonotus rufifrons (Fallén) 123456c-e-7abcd	
Orthops campestris (Linnaeus)  134567A	
Orthotylus adenocarpi (Perris) 123456DEF7AB-D	
Orthotylus bilineatus (Fallén) 1234567AB-D	
Orthotylus concolor (Kirschbaum)	

Ortho	E (CONTINUED) otylus ericetorum (Fallén)	_
Ortho	otylus flavinervis (Kirschbaum)	
Ortho	23456е F7 авс-е-8 авс де-91012 otylus flavos parsus (C.R. Sahlberg)	
	23456E-7abcdef8abcdef9a-cde-101112 otylus marginalis Reuter	2
	otylus moncreaffi (Douglas & Scott)	2
1-	23456-B7E-8CD910A1112 otylus nassatus (Fabricius)	2
1-	otylus massams (1 dofferds) 23456b7cdef8abc-ef9ab10a1112 otylus ochrotrichus Fieber	2
1-	23456b-f7-bcdef8abcdef9101112	2
1-	otylus prasinus (Fallén) 23456e-7abcdef8abf9101112	2
	otylus tenellus (Fallén) 234567abcde-8ab9101112	2
	otylus virescens (Douglas & Scott) 234567abcdef8abcd9-b10c1112	2
Ortho	otylus viridinervis (Kirschbaum) 23456pef7abcdef8abf9101112	
Panti	ilius tunicatus (Fabricius)	
Para	23456E-78-вE-9авсде F10авсд1112 psallus vitellinus (Scholtz)	
	nicocoris obscurellus (Fallén)	2
Phyli	23456-веғ7авсдеғ8авс-е-9а1012 us coryli (Linnaeus)	
1-	23456def7abcde-8abc91012 us melanocephalus (Linnaeus)	2
1-	2345f6авсде f7авсде f8ав-д91012 pcoris dimidiatus Kirschbaum	2
1-	23456A-CDEF7ABCD-F8-BCDEF9A-CDEF10-B1112	2
1-	ocoris insignis Reuter 234567p-f8aef9c101112	2
	ocoris longipennis Flor 23 <b>-f4</b> 567ef8abcdef9abcde-101112	2
	ocoris populi (Linnaeus) 23456cd-f7def8abc-ef9a-c-e-101112	2
	ocoris reuteri Saunders 23456E-7abcdef8abcdef9abcdef10ab1112	2
Phyto	ocoris tiliae (Fabricius)	
Phyto	ocoris ulmi (Linnaeus)	
Phyto	23456-веғ7авсдеғ8авсдеғ9аве-1012 ocoris varipes Boheman	
	234566E-7a-cdef8abcdef9abcdef10abc1112 shorus cinnamopterus (Kirschbaum)	2
1-	234567-всF8авсде-9авс-е-10-в1112 horus clavatus (Linnaeus)	2
1-	horus confusus (Kirschbaum)	2
1-	234567аве-8-в9101112	2
1-	phorus perplexus Douglas & Scott	2
	litus cervinus (Herrich-Schaeffer) 2345c-ef6cde-7a-cdef8abcdef9-bcde-10abc-e-1112	>

MIRIDAE (CONTINUED) Pinalitus rubricatus (Fallén)			
123456де 7авс8авс9е-10  Pinalitus viscicola (Puton)			
18д910 Pithanus maerkelii (Herrich-Schaeffer)	):	L1	12
12345	:	L1	12
Plagiognathus arbustorum (Fabricius) 134a5f6cdef7abcdef8abcd-f9a10	:	L1	12
Plagiognathus chrysanthemi (Wolff) 13456DEF7ABCDEF8ABCDEF910	:	L1	12
Platycranus bicolor (Douglas & Scott) 134567EF8-BCDE-9-B-DE-10	)C	11	.12
Plesiodema pinetella (Zetterstedt)			
1910  Polymerus nigrita (Fallén)			
12356DEF7ABCDEF8AB-DE-910  Polymerus palustris (Reuter)	):	L1	12
134567-BEF8ABCD-F910 Polymerus unifasciatus (Fabricius)	:	L1	12
13456F7abcdef8abcdef910	:	L1	12
<i>Psallodema fieberi</i> (Fieber) 13567cF8910	:	L1	12
Psallus albicinctus (Kirschbaum) 13456AB-DE-78910	:	L1	12
Psallus ambiguus (Fallén) 13456abcdef7abcf8e-910		I 1 - R	.12
Psallus assimilis Stichel			
123456-вс-ег7а-с8910 <i>Psallus falleni</i> Reuter			
123456F7-BCD-F8A-C-EF9A-C10  Psallus flavellus Stichel	-в	L1	12
123456D7-BC89C10  Psallus haematodes (Gmelin)	:	L1	12
1234567-BCDEF8ABCDEF9ABCDE-10	-в	L1	12
Psallus lepidus Fieber 13456abcdef7abc-ef8ab-d-f910	:	L1	12
Psallus luridus Reuter 134567a8p-910	·:	L1	12
Psallus perrisi (Mulsant & Rey) 134a56abcdef7a-c8a910		11	.12
Psallus salicis (Kirschbaum)			
18авсғ9ср10 <i>Psallus variabilis</i> (Fallén)			
1910 <i>Psallus varians</i> (Herrich-Schaeffer)	:	L1	12
12345ef6abcdef7abcdef8a-c9-b10  Psallus wagneri Ossiannilsson	:	L1	12
13456DE-7-B8-BE-910	:	L1	12
Pseudoloxops coccineus (Meyer-Dür)           1234567c-ef8abc-ef9-bc10	:	L1	12
Rhabdomiris striatellus (Fabricius) 1345cd-f6abcdef7abe-8910	:	L1	12
Salicarus roseri (Herrich-Schaeffer) 13456DEF7ABCDEF8DE-9A10			
Stenodema calcarata (Fallén)			
1D2c-e-3ae-4a-c-ef5abcdef6-bcdef7abcdef8abcdef9abcdef10  Stenodema holsata (Fabricius)	AEF	L1-B-D	12ғ
12345D6c-E-7E-8F9DE-10	:	L1	12

MIRIDAE (CONTINUED)
Stenodema laevigata (Linnaeus) 1-b2F3-bcdef4abcd5abcdef6abcdef7abcdef8abc-ef9abcdef10abcde-11d12
Stenodema trispinosa Reuter 1234567
Stenotus binotatus (Fabricius) 123456Def7abcdef8abcd9ab101112
Sthenarus rotermundi (Scholtz)
12345a6c-ef7ab-def8abc-ef9c101112 Strongylocoris leucocephalus (Linnaeus)
12345е-6-всде F7-вс89101112  Systellonotus triguttatus (Linnaeus)
123456-вс-ег7-в-д-г8ае-9101112 Teratocoris antennatus (Boheman)
12345A67AEF8D9101112
Teratocoris saundersi Douglas & Scott           1234567a8a91012
Tinicephalus hortulanus (Meyer-Dür) 123456-вғ7-вср89р101112
Tupiocoris rhododendri (Dolling) 12345678AB9101112
Tytthus pubescens (Knight) 13456E-78A9D101112
Tytthus pygmaeus (Zetterstedt)
123456-BEF7-BCDEF8ABE-9A-C101112
CERATOCOMBIDAE  Ceratocombus coleoptratus (Zetterstedt)
12345678F9D10A1112
DIPSOCORIDAE
Pachycoleus waltli Fieber 12345a-c6789101112
CALDIDAE
SALDIDAE  Chartoscirta cincta (Herrich-Schaeffer)
1234-bcde-5a6-b7cd-f8abcdef9abcdef10c1112c  Chartoscirta cocksii (Curtis)
12101112 Chartoscirta elegantula (Fallén)
123456789A101112
Micracanthia marginalis (Fallén) 123456c-E-7D8A91012
Saldula opacula (Zetterstedt) 123-B456789101112
Saldula orthochila (Fieber) 123E-4-B5C6ABEF7ABC-E-8AB9-BCD-F10A1112
Saldula pilosella (Thomson) 134DE-5-B67F89C-E-101112
Saldula saltatoria (Linnaeus)
123e-4-bcdef5abf6a-cf7adef8-be-9cde-10a-cdef11e-12
MESOVELIIDAE  Mesovelia furcata Mulsant & Rey
12345e-6c7aF8abeF9abcde-10a-c1112
HEBRIDAE

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HEBRIDAE (CONTINUED)
  Hebrus ruficeps Thomson
     1----2---3--C--F4--C-E-5-B--E-6-BC--F7-----8---E-9ABCD--10-B----11-----12-----
HYDROMETRIDAE
  Hydrometra stagnorum (Linnaeus)
     1----E-2----3----4--DEF5ABC-EF6ABC--7--DE-8A-C--F9ABC-E-10-B--EF11-----F12-----F
VELIIDAE
  Microvelia pygmaea (Dufour)
     1-----2-----3-----4-----5-----6-B----7-----8-----9-----11------12-----
  Microvelia reticulata (Burmeister)
     1-----2----3----4a-cd--5ab---f6-----7-b---f8a-c--f9a--def10-----11-----12--c---
  Velia caprai Tamanini
     1-----2---D--3---DE-4--CDEF5ab-DE-6a-C--F7--C---8a---E-9--C-E-10ab----11------12-----
  Velia saulii Tamanini
     1-----2----3----4-c--F5-----6----7----8----9----10A----11-----12-----
GERRIDAE
  Aquarius najas (De Geer)
     1-----2----3--C--4---D--5-B-D--6A-C-E-7-----8----9a-C---10-B--EF11-----12-----
  Aquarius paludum (Fabricius)
     1-----2----3----4----5--c-e-6-----7-Bc--F8-----9-B--E-10A-----11-----12-----
  Gerris argentatus Schummel
     1-----3----4----5--c--6--c--7--c--F8A----9AB-DEF10A----11-----12--c--
  Gerris costae (Herrich-Schaeffer)
     1-----2----3----4----5-----6-----7----8----E-9-----10-----11-----12-----
  Gerris gibbifer Schummel
     1-----2----3---D-F4abcdef5abc---6-----7--cd--8----ef9a-----10-b-d--11---d--12-----
  Gerris lacustris (Linnaeus)
     1a----2----F3---D--4abcdef5abcdef6a--De-7a-cdef8abcdef9ab-def10abcdef11-----12----
  Gerris lateralis Schummel
     1-----2-----3-----4-----5-----6---p--7-----8-----F9-----10-----11-----12-----
  Gerris odontogaster (Zetterstedt)
     1a----2----3--DEF4aBCDEF5aB--EF6a--D-F7-BC--F8a-C-EF9a--DEF10aBC-EF11a-----12-----
  Gerris thoracicus Schummel
     1----2----3-----f4abcdef5abcde-6a--de-7--cde-8ab-d-F9a-cde-10------11-----12-----
  Limnoporus rufoscutellatus (Latreille)
     1-----9-----10-----12-----
NEPIDAE
  Nepa cinerea Linnaeus
     1----2----3-bc-e-4-b-def5abcdef6-b-d-f7ab--e-8--c-ef9abcdef10abcd--11---d--12-b---
  Ranatra linearis (Linnaeus)
     1-b---2-----F3--C-E-4a--DE-5---DE-6ABCD-F7AB----8---D-9ABCD--10-----11-b----12---D-
NAUCORIDAE
  Ilyocoris cimicoides (Linnaeus)
     APHELOCHEIRIDAE
  Aphelocheirus aestivalis (Fabricius)
     1-----2-----3-----4-----5-----6-----7-----8--c--9----E-10-----11-----12-----
NOTONECTIDAE
  Notonecta glauca Linnaeus
     1---d-F2----E-3-B-DEF4ABCDEF5ABCDEF6A-CD--7-B-DEF8ABCDEF9ABCDEF10ABCDEF11-BCD-F12-BCD-F
  Notonecta maculata Fabricius
     1----2--DE-3--CDE-4-B-DE-5-B--EF6-----7-BCD--8aBCDEF9-BCDEF10aBCDEF11a-C--F12-B-D--
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NOTONECTIDAE (CONTINUED)
      Notonecta obliqua Thunberg
            1-bc--f2---de-3-bcdef4-bcdef5-b-d-f6a----f7-bcd--8ab-de-9abcdef10abcdef11a-c-e-12-b-d-f
      Notonecta viridis Delcourt
            1-B--EF2A---E-3-B--EF4AB-DEF5AB----6--D--7AB---F8ABCDE-9AB-DE-10ABCD-F11-BC-EF12--CD--
PLEIDAE
      Plea minutissima Leach
            1----2-c--3-bc--f4ab-def5a--def6a----7a---e-8-bc-ef9---def10-----11-----12-----
CORIXIDAE
      Arctocorisa germari (Fieber)
            1-----2a----3a--DE-4-B---F5-----6----F7-B---8--DEF9-B--EF10---DE-11a-----12---D--
      Callicorixa praeusta (Fieber)
            1-----f2----e-3-bcdef4abcd-f5-bc-ef6---def7ab-d-f8abcde-9--cdef10abcdef11ab--ef12a-c---
      Corixa affinis Leach
            1-----2-----3-----4a----5-----6a----7-----F8-----9-----F10-----11------12------
      Corixa dentipes Thomson
            1-----2----3-----5-B----6-----7-----F8-----F9-BCD-F10-B--EF11----EF12-----
      Corixa panzeri Fieber
            1----2---E-3--C--4ABC--5----6----7---E-8---DE-9A----F10---DE-11-----12--C---
      Corixa punctata (Illiger)
            1-b-def2---e-3-bcdef4abcdef5abcd--6--c--f7abcd-f8abcdef9abcdef10abcdef11ab--ef12-bcde-
      Cymatia bonsdorffii (C.R. Sahlberg)
            1-----2----9-B----10-BCD-F11-----12---D-F
      Cymatia coleoptrata (Fabricius)
                                   ---3--c-ef4-bcdef5ab-def6ab----7ab-d--8---def9--cd-f10-bcde-11a----f12a-cd-f
      Hesperocorixa castanea (Thomson)
            1ab----2---de-3abc-e-4abcd--5ab----f6-b----7--cd--8a---e-9a--d-f10a-c---11------12ab----
      Hesperocorixa linnaei (Fieber)
            1---d-f2--c-e-3-bcdef4abcdef5ab-de-6ab----7a--d-f8abc-ef9---def10abc-ef11ab--ef12--cd-f
      Hesperocorixa moesta (Fieber)
            1-BCDE-2--C-E-3aBCDEF4-BCDEF5aB-DE-6-B---F7---DEF8aB--E-9aBCDEF10aBCDEF11--C---12aBCD--
      Hesperocorixa sahlbergi (Fieber)
            1-b-d-f2--cdef3abcdef4abcdef5abcdef6-bcd-f7abcdef8abcd-f9-bcdef10abcdef11abc-ef12-bcde-
      Micronecta minutissima (Linnaeus)
            1----2---3----4----5----6\mathtt{A}-\mathtt{D}-7----8\mathtt{A}---\mathtt{F}9-----10-----11-----12-----
      Micronecta poweri (Douglas & Scott)
            Micronecta scholtzi (Fieber)
            1-----2----3----4--D-5-----6A----7ab-D-F8A-C-EF9----E-10-----11-----12-----
      Paracorixa concinna (Fieber)
            1-----2----3a--de-4abcd-f5a-c---6---de-7ab-d-f8abc-ef9----ef10a-cde-11a-----12-----
      Sigara distincta (Fieber)
            Sigara dorsalis (Leach)
            1-BCDEF2--C-E-3-B-DEF4ABCDEF5ABCDEF6A--DEF7ABCDEF8ABCDEF9AB-DEF10ABCDEF11AB--EF12ABCD--
      Sigara falleni (Fieber)
            1-BCD-F2-BC-E-3-BCDEF4ABCDEF5ABCDEF6-BCDEF7a-CDEF8ABCDEF9-B-DEF10ABCDEF11ABC-E-12a-CD-F
      Sigara fossarum (Leach)
            1---d-f2--c-e-3-bcdef4-bcdef5ab-def6ab----7ab---f8abcdef9---def10a-cdef11a-c--f12--cd--
      Sigara lateralis (Leach)
            1----E-2---DE-3-BCDEF4ABCD-F5ABCDEF6AB-DEF7AB-DEF8ABCDEF9--CDEF10ABC-EF11-BC-EF12-BCD--
      Sigara limitata (Fieber)
            1-b-d-f2----E-3-bcdef4abcdef5abc-e-6-b----7----Ef8-b--Ef9ab--E-10-bcdef11a-c-E-12-bcd--
      Sigara nigrolineata (Fieber)
            1\text{-BC}-\text{F2-B}-\text{E-3-BCDE}\\ \text{F4}\text{ABCDE}\\ \text{F5}\text{ABC}-\text{EF6-B}-\text{E-7-BCDE}\\ \text{F8}\text{ABC}-\text{EF9}\text{A-CDE}\\ \text{F10}\text{ABCDE}\\ \text{F11}\text{A-C--F12-BCDE}-\text{F12}\text{ABCDE}\\ \text{F11}\text{A-C--F12-BCDE}-\text{F12}\text{ABCDE}\\ \text{F12}\text{ABCDE}\\ \text{F13}\text{ABCDE}\\ \text{F13}\text{ABCDE}\\ \text{F14}\text{ABCDE}\\ \text{F14}\text{ABCDE}\\ \text{F15}\text{ABCDE}\\ \text{F1
      Sigara scotti (Douglas & Scott)
```

1-----2----3ab---4----F5-b---6---E-7---D--8a---EF9----E-10----EF11--C-E-12--C--

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR WILTSHIRE INTO VICE-COUNTY LISTS FOR VC7 AND VC8

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#### Introduction

The list of Hemiptera-Heteroptera for Wiltshire in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian North Wiltshire (VC7) and Watsonian South Wiltshire (VC8).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013b, 2014a, 2015, 2016a, 2016b, 2018a & 2018b). The resulting vice-county lists include 234 records, compared with 262 for the original Wiltshire list. The list for Wiltshire as a whole has shortened by 71, the decrease arising from 13 species added to the list and 84 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Wiltshire are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking some of the records relate to the references from which they were derived, as indicated in Table 1. The unmarked records are from the Reports of the Marlborough Natural History Society, numbers 48-54 (1899-1905).

### The divided records

V D V DID V E

ARADIDAE		
Aneurus laevis (Fabricius) [DELETED]	-	-
Aradus depressus (Fabricius) [DELETED]	-	-
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus) [DELETED]	_	_
Cyphostethus tristriatus (Fabricius)	VC7	_
· · · · · · · · · · · · · · · · · · ·		-
Elasmostethus interstinctus (Linnaeus)	VC7	-
Elasmucha grisea (Linnaeus) [DELETED]	-	-
CYDNIDAE		
Canthophorus impressus (Horváth)	VC7 (3)	VC8 (3)
• • • • • • • • • • • • • • • • • • • •	VC7 (3)	V Co (3)
Legnotus limbosus (Geoffroy)	VC1	- V/C9 (22)
Sehirus luctuosus Mulsant & Rey	-	VC8 (23)
Tritomegas bicolor (Linnaeus)	VC7	-
THYREOCORIDAE		
		VC8 (23)
Thyreocoris scarabaeoides (Linnaeus)	-	VC8 (23)
SCUTELLERIDAE		
Eurygaster testudinaria (Geoffroy) [NEW]	_	VC8 (21)
Eurygusier testuamaria (Geomoy) [NEW]	_	VC6 (21)
PENTATOMIDAE		
Aelia acuminata (Linnaeus)	-	VC8 (2)
Chlorochroa juniperina (Linnaeus)	_	VC8 (4)
Zimis zim zin zin zin zin (Zimiszwa)		, 55 (.)

PENTATOMIDAE (CONTINUED)		
Dolycoris baccarum (Linnaeus)	VC7	_
Eurydema oleracea (Linnaeus) [NEW]	-	VC8 (21)
Eysarcoris venustissimus (Schrank)	VC7 (24)	VC8 (5)
Neottiglossa pusilla (Gmelin)	-	VC8 (23)
Palomena prasina (Linnaeus)	-	VC8 (23)
Pentatoma rufipes (Linnaeus)	VC7	VC8
Picromerus bidens (Linnaeus)	-	VC8 (23)
Piezodorus lituratus (Fabricius) [DELETED]	-	-
Podops inunctus (Fabricius)	VC7	-
Troilus luridus (Fabricius) [DELETED]	-	-
Zicrona caerulea (Linnaeus)	VC7	VC8
COREIDAE		
Coreus marginatus (Linnaeus)	_	VC8 (23)
Coriomeris denticulatus (Scopoli)	VC7	-
RHOPALIDAE		
Corizus hyoscyami (Linnaeus)	VC7 (25)	-
Liorhyssus hyalinus (Fabricius)	-	VC8 (6)
Myrmus miriformis (Fallén)	VC7	-
Rhopalus maculatus (Fieber)	-	VC8 (23)
Rhopalus parumpunctatus Schilling	-	VC8 (23)
Rhopalus rufus Schilling	-	VC8 (23)
Rhopalus subrufus (Gmelin)	-	VC8 (7)
STENOCEPHALIDAE		
Dicranocephalus medius (Mulsant & Rey)	_	VC8 (23)
		· /
Lygaeidae		
Aphanus rolandri (Linnaeus)	-	VC8 (18)
Cymus claviculus (Fallén)	VC7 (26)	VC8 (8)
Cymus glandicolor Hahn	VC7	VC8
Cymus melanocephalus Fieber	-	VC8 (1)
Drymus brunneus (R.F. Sahlberg) [DELETED]	-	-
Drymus ryeii Douglas & Scott [DELETED]	- VC7	- V/C0
Drymus sylvaticus (Fabricius) Gastrodes abietum Bergroth [DELETED]	VC/	VC8
Gastrodes grossipes (De Geer)	- VC7	VC8
Heterogaster artemisiae Schilling	• C /	VC8 (18)
Heterogaster urticae (Fabricius)	_	VC8 (10)
Ischnodemus sabuleti (Fallén) [NEW]	_	VC8 (21)
Kleidocerys ericae (Horváth)	_	VC8 (23)
Kleidocerys resedae (Panzer)	_	VC8 (23)
Lamproplax picea (Flor) [DELETED]	_	-
Lygaeus simulans Deckert [DELETED]	-	_
Macrodema microptera (Curtis)	-	VC8 (23)
Megalonotus antennatus (Schilling)	-	VC8 (23)
Peritrechus geniculatus (Hahn)	-	VC8
Peritrechus lundii (Gmelin) [DELETED]	-	-
Plinthisus brevipennis (Latreille) [DELETED]	-	-
Scolopostethus affinis (Schilling) [DELETED]	-	-
Scolopostethus decoratus (Hahn)	-	VC8 (23)
Scolopostethus grandis Horváth	-	VC8 (23)
Scolopostethus thomsoni Reuter	VC7	VC8

Lygaeidae (Continued)		
Stygnocoris fuligineus (Geoffroy)	_	VC8 (23)
Stygnocoris rusticus (Fallén)	VC7	-
Stygnocoris sabulosus (Schilling) [DELETED]	_	_
Taphropeltus contractus (Herrich-Schaeffer)	_	VC8
Trapezonotus desertus Seidenstücker [NEW]	_	VC8 (21)
Trapezonotus dispar Stål [NEW]	_	VC8 (23)
Tropistethus holosericus (Scholtz)	_	VC8 (23)
1		
BERYTIDAE		
Berytinus clavipes (Fabricius)	VC7 (26)	-
Berytinus minor (Herrich-Schaeffer)	-	VC8 (23)
Metatropis rufescens (Herrich-Schaeffer)	-	VC8 (1)
Neides tipularius (Linnaeus)	-	VC8
DIEGNATIDAE		
PIESMATIDAE  Piesma maculatum (Laporte) [DELETED]		
Flesma maculatum (Laporte) [DELETED]	-	-
TINGIDAE		
Acalypta carinata (Panzer) [NEW]	VC7 (12)	_
Acalypta parvula (Fallén) [DELETED]	- ` ´	_
Agramma laetum (Fallén) [DELETED]	_	_
Derephysia foliacea (Fallén) [DELETED]	_	_
Dictyla convergens (Herrich-Schaeffer) [DELETED]	_	_
Dictyonota strichnocera Fieber [DELETED]	_	_
Physatocheila dumetorum (Herrich-Schaeffer) [DELETED]	_	_
Stephanitis rhododrendri Horváth [DELETED]	_	_
Tingis ampliata (Herrich-Schaeffer) [DELETED]		
Tingis ampitata (Herrich-Schaerier) [DELETED]	-	-
Tingis ampitata (Herrich-Schaeffer) [DELETED]  Tingis cardui (Linnaeus)	- VC7	VC8
Tingis cardui (Linnaeus)	VC7	VC8
Tingis cardui (Linnaeus)  REDUVIIDAE	VC7	VC8
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]	- VC7	-
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)	- -	VC8 - VC8
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]	- VC7 - - VC7	-
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)	- -	-
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)	- -	- VC8 -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)	- -	- VC8 - VC8 (9)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)	- - VC7 - -	- VC8 -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)	- -	- VC8 - VC8 (9) VC8 (20)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)	- VC7 - - VC7	- VC8 - VC8 (9)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)	- - VC7 - -	- VC8 - VC8 (9) VC8 (20)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]	- VC7 - - VC7 - VC7	- VC8 - VC8 (9) VC8 (20)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom	- VC7 - - VC7 - VC7 - VC7	- VC8 - VC8 (9) VC8 (20)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis lineatus Dahlbom	- VC7 - - - VC7 - VC7 - VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom	- VC7 - - VC7 - VC7 - VC7	- VC8 - VC8 (9) VC8 (20)
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis lineatus Dahlbom	- VC7 - - - VC7 - VC7 - VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis rugosus (Linnaeus)  ANTHOCORIDAE  Acompocoris pygmaeus (Fallén) [DELETED]	- VC7 - - - VC7 - VC7 - VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis rugosus (Linnaeus)  ANTHOCORIDAE  Acompocoris pygmaeus (Fallén) [DELETED]  Anthocoris butleri Le Quesne [DELETED]	- VC7 - - - VC7 - VC7 - VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis rugosus (Linnaeus)  ANTHOCORIDAE  Acompocoris pygmaeus (Fallén) [DELETED]	- VC7 - VC7 - VC7 - VC7 VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus boops (Schiødte)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis rugosus (Linnaeus)  ANTHOCORIDAE  Acompocoris pygmaeus (Fallén) [DELETED]  Anthocoris butleri Le Quesne [DELETED]	- VC7 - - - VC7 - VC7 - VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
Tingis cardui (Linnaeus)  REDUVIIDAE  Empicoris culiciformis (De Geer) [DELETED]  Empicoris vagabundus (Linnaeus)  Reduvius personatus (Linnaeus)  NABIDAE  Himacerus apterus (Fabricius)  Himacerus major (A. Costa)  Himacerus mirmicoides (O. Costa)  Nabis ferus (Linnaeus)  Nabis flavomarginatus Scholtz [DELETED]  Nabis limbatus Dahlbom  Nabis rugosus (Linnaeus)  ANTHOCORIDAE  Acompocoris pygmaeus (Fallén) [DELETED]  Anthocoris butleri Le Quesne [DELETED]  Anthocoris confusus Reuter [DELETED]	- VC7 - VC7 - VC7 - VC7 VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
REDUVIIDAE Empicoris culiciformis (De Geer) [DELETED] Empicoris vagabundus (Linnaeus) Reduvius personatus (Linnaeus)  NABIDAE Himacerus apterus (Fabricius) Himacerus major (A. Costa) Himacerus mirmicoides (O. Costa) Nabis ferus (Linnaeus) Nabis flavomarginatus Scholtz [DELETED] Nabis limbatus Dahlbom Nabis rugosus (Linnaeus)  ANTHOCORIDAE Acompocoris pygmaeus (Fallén) [DELETED] Anthocoris dutleri Le Quesne [DELETED] Anthocoris gallarumulmi (De Geer)	- VC7 - VC7 - VC7 - VC7 VC7 VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
REDUVIIDAE Empicoris culiciformis (De Geer) [DELETED] Empicoris vagabundus (Linnaeus) Reduvius personatus (Linnaeus)  NABIDAE Himacerus apterus (Fabricius) Himacerus major (A. Costa) Himacerus mirmicoides (O. Costa) Nabis ferus (Linnaeus) Nabis flavomarginatus Scholtz [DELETED] Nabis limbatus Dahlbom Nabis rugosus (Linnaeus)  ANTHOCORIDAE Acompocoris pygmaeus (Fallén) [DELETED] Anthocoris butleri Le Quesne [DELETED] Anthocoris gallarumulmi (De Geer) Anthocoris nemoralis (Fabricius)	- VC7 - VC7 - VC7 VC7 VC7 VC7 VC7 VC7	- VC8 - VC8 (9) VC8 (20) - VC8 - -
REDUVIIDAE Empicoris culiciformis (De Geer) [DELETED] Empicoris vagabundus (Linnaeus) Reduvius personatus (Linnaeus)  NABIDAE Himacerus apterus (Fabricius) Himacerus major (A. Costa) Himacerus mirmicoides (O. Costa) Nabis ferus (Linnaeus) Nabis flavomarginatus Scholtz [DELETED] Nabis limbatus Dahlbom Nabis rugosus (Linnaeus)  ANTHOCORIDAE Acompocoris pygmaeus (Fallén) [DELETED] Anthocoris butleri Le Quesne [DELETED] Anthocoris confusus Reuter [DELETED] Anthocoris gallarumulmi (De Geer) Anthocoris nemoralis (Fabricius) Anthocoris nemorum (Linnaeus)	- VC7 - VC7 - VC7 VC7 VC7 VC7 VC7 VC7	- VC8 (9) VC8 (20) - VC8 

ANTILOGODIDAE (CONTINUED)		
ANTHOCORIDAE (CONTINUED)	VC7	
Lyctocoris campestris (Fabricius)	VC7	- V(C0 (21)
Orius laevigatus (Fieber) [NEW]	-	VC8 (21)
Orius majusculus (Reuter) [DELETED]	- NG7 (24)	-
Orius niger (Wolff)	VC7 (24)	- MG0 (27)
Temnostethus gracilis Horváth	-	VC8 (27)
Tetraphleps bicuspis (Herrich-Schaeffer) [DELETED]	-	-
Xylocoris cursitans (Fallén) [DELETED]	-	-
Xylocoris galactinus (Fieber)	-	VC8 (23)
CIMICIDAE		
Cimex lectularius Linnaeus	VC7	VC8
Oeciacus hirundinis (Lamarck)	-	VC8 (23)
Oettucus mrunums (Lamarck)		V Co (23)
MICROPHYSIDAE		
Loricula elegantula (Baerensprung)	VC7 (10)	-
Loricula pselaphiformis Curtis	VC7 (10)	-
Maria		
MIRIDAE  A catronis aimmerthalii (Flor)		VC8 (1)
Acetropis gimmerthalii (Flor)	-	
Adelphocoris lineolatus (Goeze)	-	VC8 (23)
Amblytylus nasutus (Kirschbaum) [DELETED]	- V/C7	-
Apolygus lucorum (Meyer-Dür)	VC7	-
Apolygus spinolae (Meyer-Dür) [DELETED]	-	-
Asciodema obsoleta (Fieber) [DELETED]	-	-
Atractotomus magnicornis (Fallén)	-	VC8
Atractotomus mali (Meyer-Dür)	-	VC8 (1)
Blepharidopterus angulatus (Fallén)	VC7	-
Blepharidopterus diaphanus (Kirschbaum)	VC7	-
Calocoris alpestris (Meyer-Dür) [NEW]	VC7 (19)	-
Calocoris roseomaculatus (De Geer) [DELETED]	-	-
Camptozygum aequale (Villers) [DELETED]	-	-
Campyloneura virgula (Herrich-Schaeffer) [DELETED]	-	-
Capsodes gothicus (Linnaeus)	-	VC8
Capsus ater (Linnaeus)	VC7	VC8
Charagochilus gyllenhalii (Fallén) [DELETED]	-	-
Chlamydatus evanescens (Boheman)	VC7 (31)	-
Chlamydatus pullus (Reuter) [DELETED]	-	-
Closterotomus fulvomaculatus (De Geer)	VC7 (24)	VC8 (23)
Closterotomus norwegicus (Gmelin)	VC7	-
Compsidolon salicellum (Herrich-Schaeffer) [DELETED]	-	-
Conostethus roseus (Fallén) [DELETED]	-	-
Cyllecoris histrionius (Linnaeus)	VC7	VC8
Cyrtorhinus caricis (Fallén) [DELETED]	-	-
Deraeocoris flavilinea (A. Costa)	VC7 (17)	_
Deraeocoris lutescens (Schilling) [DELETED]	-	_
Deraeocoris olivaceus (Fabricius)	_	VC8 (28)
Deraeocoris ruber (Linnaeus)	VC7	VC8
Deraeocoris scutellaris (Fabricius)	_	VC8 (1)
Dichrooscytus rufipennis (Fallén) [DELETED]	_	-
Dicyphus constrictus (Boheman) [DELETED]	_	_
Dicyphus epilobii Reuter	VC7	_
Dicyphus errans (Wolff)	-	VC8
Dicyphus globulifer (Fallén) [DELETED]	_	-
Dicyphus globulger (Failer) [DEEETED]  Dicyphus pallicornis (Fieber) [NEW]	_	VC8 (21)
200, pinus panicorinis (1 10001) [111111]		, 50 (21)

RIDAE (CONTINUED)  Dicyphus stachydis J. Sahlberg [DELETED]	-	-
Dryophilocoris flavoquadrimaculatus (De Geer)	VC7	VC8
Globiceps flavomaculatus (Fabricius) [DELETED]	-	-
Grypocoris stysi (Wagner)	VC7	VC8
Hallodapus rufescens (Burmeister)	-	VC8
Halticus luteicollis (Panzer)	-	VC8
Harpocera thoracica (Fallén)	VC7	VC8
Heterocordylus genistae (Scopoli) [DELETED]	-	-
Heterocordylus tibialis (Hahn)	-	VC8
Heterotoma planicornis (Pallas)	VC7	VC8
Hypseloecus visci (Puton) [NEW]	-	VC8
Leptopterna dolabrata (Linnaeus)	VC7	VC8
Leptopterna ferrugata (Fallén) [DELETED]	-	-
Liocoris tripustulatus (Fabricius)	VC7	VC8
Lopus decolor (Fallén)	VC7 (29)	-
Lygocoris pabulinus (Linnaeus)	VC7	-
Lygocoris rugicollis (Fallén)	-	VC8
Lygus rugulipennis Poppius	-	VC8
Macrolophus rubi Woodroffe [NEW]	VC7 (12)	-
Macrolophus pygmaeus (Rambur)	VC7 (24)	-
Macrotylus paykullii (Fallén) [DELETED]	-	-
Macrotylus solitarius (Meyer-Dür) [DELETED]	-	-
Malacocoris chlorizans (Panzer)	-	VC8
Mecomma ambulans (Fallén) [DELETED]	-	-
Megacoelum infusum (Herrich-Schaeffer)	-	VC8
Megaloceroea recticornis (Geoffroy)	-	VC8
Megalocoleus molliculus (Fallén) [DELETED]	-	-
Miris striatus (Linnaeus)	VC7	VC8
Monalocoris filicis (Linnaeus) [DELETED]	-	-
Neolygus contaminatus (Fallén) [DELETED]	-	-
Neolygus viridis (Fallén) [DELETED]	-	-
Notostira elongata (Geoffroy)	VC7	-
Notostira erratica (Linnaeus)	VC7 (30)	-
Oncotylus viridiflavus (Goeze) [NEW]	-	VC8
Orthocephalus coriaceus (Fabricius)	-	VC8
Orthocephalus saltator (Hahn)	-	VC8
Orthonotus rufifrons (Fallén) [DELETED]	-	-
Orthops campestris (Linnaeus) [NEW]	-	VC8
Orthotylus concolor (Kirschbaum)	VC7	-
Orthotylus ericetorum (Fallén) [DELETED]	-	-
Orthotylus marginalis Reuter	VC7	VC8
Orthotylus nassatus (Fabricius) [DELETED]	-	-
Orthotylus ochrotrichus Fieber [DELETED]	-	-
Orthotylus prasinus (Fallén)	-	VC8
Orthotylus virescens (Douglas & Scott)	VC7	-
Pantilius tunicatus (Fabricius)	VC7	-
Phoenicocoris obscurellus (Fallén)	-	VC8
Phylus coryli (Linnaeus)	-	VC8
Phylus melanocephalus (Linnaeus)	-	VC8
Phytocoris dimidiatus Kirschbaum	-	VC8
Phytocoris longipennis Flor [DELETED]	-	-
Phytocoris populi (Linnaeus)	VC7	-
Phytocoris reuteri Saunders [DELETED]	-	-
Phytocoris tiliae (Fabricius)	VC7	VC8

MIRIDAE (CONTINUED)		
Phytocoris ulmi (Linnaeus)	VC7	VC8
Phytocoris varipes Boheman [DELETED]	-	-
Pilophorus cinnamopterus (Kirschbaum)	_	VC8 (23)
Pilophorus perplexus Douglas & Scott	-	VC8 (23)
Pinalitus cervinus (Herrich-Schaeffer)	VC7	-
Pinalitus rubricatus (Fallén) [DELETED]	-	-
Pithanus maerkelii (Herrich-Schaeffer) [DELETED]	-	-
Plagiognathus arbustorum (Fabricius)	VC7	-
Plagiognathus chrysanthemi (Wolff)	-	VC8
Platycranus bicolor (Douglas & Scott) [DELETED]	-	-
Polymerus nigrita (Fallén) [DELETED]	-	-
Polymerus unifasciatus (Fabricius) [DELETED]	-	-
Psallus albicinctus (Kirschbaum)	VC7 (13)	-
Psallus ambiguus (Fallén)	VC7	-
Psallus flavellus Stichel [DELETED]	-	-
Psallus haematodes (Gmelin)	VC7	-
Psallus lepidus Fieber [DELETED]	-	-
Psallus luridus Reuter	VC7 (14)	VC8 (27)
Psallus salicis (Kirschbaum)	VC7	VC8
Psallus varians (Herrich-Schaeffer)	VC7	_
Pseudoloxops coccineus (Meyer-Dür) [DELETED]	_	_
Rhabdomiris striatellus (Fabricius)	VC7	-
Salicarus roseri (Herrich-Schaeffer)	VC7	-
Stenodema calcarata (Fallén)	VC7	VC8 (15)
Stenodema holsata (Fabricius)	VC7	-
Stenodema laevigata (Linnaeus)	VC7	-
Stenotus binotatus (Fabricius)	VC7	-
Strongylocoris leucocephalus (Linnaeus) [DELETED]	_	_
Strongylocoris luridus (Fallén) [DELETED]	-	-
Tinicephalus hortulanus (Meyer-Dür) [DELETED]	-	-
SALDIDAE	***	
Chartoscirta cincta (Herrich-Schaeffer)	VC7	-
Saldula orthochila (Fieber)	VC7 (24)	-
Saldula saltatoria (Linnaeus)	VC7	-
MESOVELIIDAE		
Mesovelia furcata Mulsant & Rey [DELETED]	_	_
11000,0000,0000 110000000 00 100, [2 222122]		
HYDROMETRIDAE		
Hydrometra stagnorum (Linnaeus)	VC7 (22)	VC8 (22)
Verses as		
VELIIDAE	1107 (22)	1100 (22)
Microvelia reticulata (Burmeister)	VC7 (22)	VC8 (22)
Velia caprai Tamanini	-	VC8 (22)
Gerridae		
Aquarius najas (De Geer)	VC7	_
Gerris lacustris (Linnaeus)	VC7 (22)	VC8 (22)
Gerris lateralis Schummel	-	VC8 (23)
Gerris odontogaster (Zetterstedt)	VC7 (22)	-
Gerris thoracicus Schummel	VC7 (22)	_
2 15 more developed a constitution	. 5. (22)	

NEPIDAE		
Nepa cinerea Linnaeus	VC7 (22)	-
Ranatra linearis (Linnaeus)	VC7 (22)	VC8 (22)
NAUCORIDAE		
Ilyocoris cimicoides (Linnaeus)	VC7 (22)	-
A DIVIEW OF WEIGHT A F		
APHELOCHEIRIDAE	VC7 (22)	V(C9 (22)
Aphelocheirus aestivalis (Fabricius)	VC7 (22)	VC8 (22)
Notonectidae		
Notonecta glauca Linnaeus	VC7 (22)	VC8 (22)
Notonecta maculata Fabricius	VC7 (22)	V CO (22)
Notonecta macatata Patricius  Notonecta obliqua Thunberg [DELETED]	VC1 (22)	-
	- V(C7 (22)	-
Notonecta viridis Delcourt	VC7 (22)	-
PLEIDAE		
Plea minutissima Leach	VC7 (22)	VC8 (22)
1 tea minutssima Leach	VC1 (22)	V CO (22)
CORIXIDAE		
Arctocorisa germari (Fieber) [DELETED]	_	_
Callicorixa praeusta (Fieber)	VC7 (22)	VC8 (22)
Corixa dentipes Thomson	VC7 (22)	-
Corixa panzeri Fieber	VC7 (22)	VC8 (23)
•	- V(C7 (22)	
Corixa punctata (Illiger)	VC7 (22)	VC8 (22)
Cymatia bonsdorffii (C.R. Sahlberg) [DELETED]	-	-
Cymatia coleoptrata (Fabricius)	VC7 (16)	VC8 (22)
Hesperocorixa castanea (Thomson)	-	VC8 (23)
Hesperocorixa linnaei (Fieber) [DELETED]	-	-
Hesperocorixa sahlbergi (Fieber)	VC7 (22)	VC8 (22)
Micronecta minutissima (Linnaeus) [DELETED]	-	-
Micronecta poweri (Douglas & Scott)	VC7 (22)	-
Paracorixa concinna (Fieber)	_	VC8 (23)
Sigara distincta (Fieber)	_	VC8 (22)
Sigara dorsalis (Leach)	VC7 (22)	VC8 (22)
Sigara falleni (Fieber)	VC7 (22)	VC8 (22)
Sigara fossarum (Leach) [DELETED]	-	-
Sigara lateralis (Leach)	_	VC8 (23)
Sigara limitata (Fieber) [DELETED]	-	V CO (23)
	VC7 (22)	VC8 (22)
Sigara nigrolineata (Fieber)	VC7 (22)	VC8 (22)

TABLE 1. The references relating to the numbers in the list of divided records.

(1)	Andrewes (1949)	(17)	Dickson (2004)
(2)	Ryle (1951)	(18)	Alexander (2005)
(3)	Covey (2012)	(19)	Alexander (2015)
(4)	Stokes (1947a)	(20)	Hutchinson (1921)
(5)	Stokes (1947b)	(21)	Ryan (2016c)
(6)	Judd (2011)	(22)	Huxley (2003)
(7)	Stokes (1956)	(23)	Stokes (1952)
(8)	Morris (1971)	(24)	Allen (1967)
(9)	Leston (1951a)	(25)	Whitehead (2008)
(10)	Allen (1971)	(26)	Massee (1962)
(11)	Leston (1951b)	(27)	Woodroffe (1960)
(12)	Ryan (2014b)	(28)	Dickson (2012)
(13)	Ryan (2013c)	(29)	Ryle (1960)
(14)	Ryan (2013a)	(30)	Woodroffe (1977)
(15)	Stokes (1949)	(31)	Ryan (2013d)
(16)	Lansbury (1956)		

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# SPECIES ACCOUNTS FOR THE HEMIPTERA-HETEROPTERA REPORTED AS NEW TO THE BRITISH ISLES SINCE SOUTHWOOD & LESTON (1959): 2008 TO 2014

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#### Introduction

This is the sixth instalment of species accounts which expand upon the Addendum to Southwood & Leston (1959) (Ryan, 2012a & 2013a). The previous instalments (Ryan, 2015e, 2016a, 2016b, 2017a & 2017b) covered the species announced as new to the British Isles in the period 1959 to 2007, which is here extended by another seven years to 2014. As before, the species accounts are based upon details published in the national entomological literature up to the present time.

The numbering of the species accounts follows that of Ryan (2012a), which places them within the taxonomic sequence of Southwood & Leston (1959). Details of identification are given, but figures from published articles are not reproduced. A full set of keys for the land bugs is provided by Nau (2012) and Kirby (2015). Images for the bugs may be found at the British Bugs website (www.britishbugs.org.uk) and elsewhere on the internet, such as Flickr (www.flickr.com). County distribution maps for the new species are given in Figure 1. References are not cited within the species accounts, in order to avoid cluttering the prose. The evidence base for the accounts is instead given in an annotated bibliography.

## **Species accounts**

#### 075E Nysius huttoni F.B. White (Lygaeidae)

This seedbug was first found in the British Isles by N. Cuming on 17 September 2007 at a sparsely vegetated sandy area in North Warren RSPB Reserve on the Suffolk coast. It has since been recorded from the counties of Essex, Hertfordshire, Kent, Sussex, Surrey, Yorkshire, Cambridgeshire, Derbyshire and Norfolk, adults occurring in the months of May, June, July, August and September. Nymphs have been recorded in May. Where the habitat is stated, the bug has been taken chiefly from sparsely vegetated ground, on sand or gravel, on the coast, in a quarry or sandpit and on brownfield land.

The bug can be separated from its British congeners by the presence of conspicuous long, curved pale hairs on the wings, and its small size.

## 299A Dicyphus escalerae Lindberg (Miridae)

This plant bug was first found in the British Isles by P. Kirby on ruderal vegetation growing from a mound of spoil at Battersea Power Station, London (Surrey) on 13 May 2008. It has since been recorded from the counties of Leicestershire, Devon, Caernarvonshire, Worcestershire, Derbyshire, Warwickshire, Oxfordshire, Berkshire and Gloucestershire, adults occurring in the months of July, August, September, October, November and December. Where stated, the bugs were found on snapdragon, *Antirrhinum*, in urban areas. Nymphs have been recorded in October. The brachypterous form of the bug has been recorded, in both the male and female.

The bug may be confused with the more recent addition *Dicyphus tamaninii* Wagner, but can be separated by examination of the male genitalia.

## 130F *Metopoplax fuscinervis* Stål (Lygaeidae)

This groundbug was first found in the British Isles by P. Harvey among specimens of the closely related *Metopoplax ditomoides* (A. Costa) taken from West Thurrock Marshes, Essex in 2005. It has since been found in Hampshire and Surrey.

The bug is distinct from its British congener in having the thorax bicoloured, black or very dark brown at the front and cream to pale brown at the rear, instead of uniform black. However, intermediate forms exist.

#### 344A *Orthotylus caprai* Wagner (Miridae)

This plant bug was first found in the British Isles by R. P. Ryan beating Wellingtonia in University Parks, Oxford, Oxfordshire on 3 August 2006. It has since been recorded from the counties of Essex, Berkshire and Buckinghamshire, adults occurring in the months of July, August and September. Nymphs have been recorded in July. The bug has also been found on Leyland Cypress, Monterey Cypress and Smooth Arizona Cypress.

The bug is very similar to the more recent addition *Orthotylus junipericola* Linnavuori, but can be separated by examination of the male genitalia.

## 050A Leptoglossus occidentalis Heidemann (Coreidae)

This squashbug was first found in the British Isles by B. Ford at Weymouth College, Dorset in January 2007. Since then, there have been many records at light traps along the south coast of England, together with a number of inland records, extending as far west as the counties of Cornwall, Wexford and Down, and as far north as Durham and Cumbria. Almost all records are for adults taken at light or found in buildings, in the months of August, September, October and November. There is also a record for an adult in a Gloucestershire garden in June, a record of a nymph on a house in the Isle of Wight in October; and a record of an adult beaten from Norway Spruce in October in Berkshire. No breeding populations have yet been reported.

The bug is distinctive and is unlikely to be confused with any other British species.

## 094A Rhyparochromus vulgaris (Schilling) (Lygaeidae)

This groundbug was first found in the British Isles by N. Harvey at Rainham Marshes, Essex, reported by B. Nau in 2010. It has since been recorded at several sites in Middlesex and has been added to the lists for Surrey and Kent, adults occurring in the months of July, August and September. The insect has been found under a log and under willow bark.

The bug is very similar to *Rhyparochromus pini* (Linnaeus), but the lateral edges of the pronotum are narrowly pale along their entire length in this species, and not in *R. vulgaris*. Also, the membrane of *R. vulgaris* has a clear apical mark.

## 237A Conostethus venustus (Fieber) (Miridae)

This plant bug was first found in the British Isles by J. Flanagan sweeping a flower-rich area of Centenary Riverside Nature Park, Rotherham, Yorkshire on 31 May 2010. It has since been recorded from the counties of Nottinghamshire, Lincolnshire, Durham and Derbyshire, adults occurring in the months of June, July, August, September, October and November. Nymphs have been recorded in July. Where stated, the associated plants were scentless mayweed, pineappleweed, scented mayweed, sea mayweed, chamomile or stinking chamomile; growing on a brownfield site, along a farm track, in an arable field margin, in a post-industrial area or on the coast. The bugs were found either on or under the plants.

The bug can be distinguished from its British congeners by its smaller size and short, fine tibial spines.

## 299B Dicyphus pallidus (Herrich-Schaeffer) (Miridae)

This plant bug was first found in the British Isles by R. P. Ryan on hedge woundwort along a shaded path in Homefield Wood, near Marlow, Buckinghamshire on 18 July 2009. It has since been recorded from the counties of Oxfordshire, Berkshire, Hertfordshire, Hampshire, Surrey, Sussex, Bedfordshire, Gloucestershire and Kent, adults occurring in the months of June, July, August and September. Nymphs have been recorded in July. Where stated, the associated plant is hedge woundwort growing in shaded woodland locations.

The bug is the largest British Dicyphus, with the hind tibia being at least 3.75mm long, compared with 3.25mm or less for the other species. It also has black hairs along the hind edge of the hind femur.

## 387A Closterotomus trivialis (A. Costa) (Miridae)

This plant bug was first found in the British Isles by L. Counter in a north London (Middlesex) garden on the ornamental shrub *Hypericum* 'Hidcote' in the summer of 2008. It has since been

recorded from the counties of Surrey, Oxfordshire, Norfolk, Westmoreland, Derbyshire and Cork, adults occurring in the months of May and June. Both adults and nymphs have been found on a variety of plants, in urban and natural settings. The nymphs have been recorded in May.

The bug is easily separated from its British congeners by its size, colouration and markings.

## 015A Tritomegas sexmaculatus (Rambur) (Cydnidae)

This shieldbug was first identified in the British Isles from a photograph taken by J. Elmore at Tyland Barn, Maidstone, Kent in April 2011. Adults and nymphs have been found at the same site in August on black horehound. There have been several more reports of the bug in Kent and one from Middlesex, adults occurring in the months of June, August and September. Where stated, the bug was found on black horehound, with one record for white dead nettle.

The bug can be separated from the similar *Tritomegas bicolor* (Linnaeus) by the white streak along the anterior margin of the pronotum. This is long and uniformly tapered in the former, and short and not uniform in the latter.

## 039B Rhaphigaster nebulosa (Poda) (Pentatomidae)

This shieldbug was first found in the British Isles at Rainham Marshes, Essex in September 2010, reported by T. M. Bantock, D. Notton and M. V. L. Barclay. It has since been recorded from several sites in London (Surrey, Kent & Middlesex), adults occurring in the months of July, September and October. Nymphs have been recorded in July, August and September. The only reported host plant is Common Lilac.

The bug can be distinguished from other shieldbugs by the mottled black markings on the wing membrane.

## 482A *Glaenocorisa cavifrons* (Thomson) (Corixidae)

This waterboatman has recently been raised to specific rank, having previously been regarded as a subspecies of *Glaenocorisa propinqua* (Fieber), as reported in the British literature by R. P. Ryan in 2013. Consequently, old records for the latter species are only valid if the subspecies is stated, or if they can be authenticated by tracing to a specimen. *G. cavifrons* has been recorded from the counties of Cumberland, Westmoreland, Yorkshire, Lancashire, Cheshire, Cambridgeshire, Hampshire, Somerset and Scotland, adults occurring in the month of July.

The bug can be separated from its congener by the arrangement of the palar pegs.

## 174A Coranus woodroffei P.V. Putshkov (Reduviidae)

This assassin bug arose as a new species when it was separated from *Coranus subapterus* (De Geer) over thirty years ago, but this was not advertised in the British entomological literature until 2012 by R. P. Ryan. Consequently, old records for the latter species are only valid if they can be authenticated by tracing to a specimen. *Coranus woodroffei* has been recorded from the counties of Surrey, Lincolnshire, Hampshire, Norfolk and Suffolk, adults occurring in the months of July, August and September. Where stated, the bug has been found in road verges and sweeping ericaceous heath.

The bug is larger and its brachypterous forewings shorter than *C. subapterus*.

## 174B Coranus aethiops Jakovlev (Reduviidae)

This assassin bug was first found in the British Isles, beneath heather on Thorne Moor, Yorkshire on 20 September 1979, reported by S. Foster in 2013. The insect had been misidentified at the time as a melanic form of *Coranus subapterus* (De Geer). There is another record for the county on Hatfield Moor in 1990, where the bug was taken in water traps set in peat among heather.

The bug can be distinguished from its British congeners by its black abdominal venter, and by the spoon-shaped black parameres.

## 028A Dyroderes umbraculatus (Fabricius) (Pentatomidae)

This shieldbug was first found in the British Isles by R. K. & R. M. Merrifield working mixed hedgerow vegetation at Perivale Wood Local Nature Reserve, Middlesex on 29 June 2013. There has been one further reported site of the bug, Southampton Common, South Hampshire on 16 July & 7 September 2015.

The bug is distinctive and is unlikely to be confused with the other species of British shieldbug.

## 344B Orthotylus junipericola Linnavuori (Miridae)

This plant bug was first found in the British Isles by P. J. Hodge beating cypress in a cemetery in Kingston-upon-Thames, Surrey on 15 September 2008. It has since been recorded in Hampshire, Middlesex and Hertfordshire, adults occurring in the months of July, August and September, on cypress trees.

The bug is similar to *Orthotylus caprai* Wagner but can be separated by examination of the male genitalia.

## 409A Tropidosteptes pacificus (Van Duzee) (Miridae)

This plant bug was first found in the British Isles by T. Bantock beating ash at Alexandra Park, Middlesex on 11 June 2012. It was found again at the same site on 20 September 2012. The only other published record is for the Natural History Museum, Middlesex where it was found among malaise trap material collected in the wildlife garden in October 2012.

The bug is distinctive and is unlikely to be confused with other species of British plant bug.

## Physatocheila confinis Horváth (Tingidae)

I have found no published records for this species in the British Isles, in spite of its inclusion in Ryan (2014a & 2014b), and there is therefore no evidence that it occurs here.

## Annotated bibliography

## 075E Nysius huttoni F.B. White (Lygaeidae)

Cuming (2008). New to Britain, 17 September 2007, North Warren RSPB Reserve, East Suffolk. Adults and nymphs found at the same site in May 2008. Habitat was sparsely vegetated sandy soil. Found at other sites on the Suffolk coast, including RSPB Minsmere.

Bowdrey (2009a). 19 July 2009, gravel pit at Thorpe-le-Soken, North Essex.

Gray (2016). 15 August 2015, Amwell Nature Reserve, Hertfordshire, sweeping sparsely vegetated sandy and gravelly area.

Ryan (2016f). Records for Cambridgeshire, Derbyshire and Norfolk, for the months of June, and August.

Bantock (2014d). Records for Suffolk, Essex, Kent and West Sussex. The last record was for Crumbles, Eastbourne, hundreds of adults swarming in a bare sandy area on 6.vii.2013.

Flanagan (2015a). Swept from brownfield land with sparse ruderal vegetation, Sheffield, South-west Yorkshire (VC63), 28.ix.2014. Record for Grove Farm (former landfill), Stanton-by-Dale, Derbyshire, 18.vi.2014.

Bantock (2016b). Record for Moorhouse Sand Pit, Limpsfield, Surrey on 18.vii.15.

Foster (2016). Post-industrial site, adjacent to the River Don Navigation Canal to the North of Doncaster, South-west Yorkshire, on an extensive patch of Black Meddick, August 2015.

Flanagan (2016). Record for a brownfield site near Mirfield (south-west of Dewsbury), close to the River Calder, on 10.ix.2015. Record for Gillfield Wood, near Sheffield, Watsonian Derbyshire, 8.viii.2015.

## 299A Dicyphus escalerae Lindberg (Miridae)

Kirby, Bantock & Nau (2009). First record in Battersea, 13 May 2008, from mixed tall ruderal vegetation on a mound of rubble. Also a record from a photograph, on *Antirrhinum* in a Leicestershire garden, 15th November 2008.

Aukema (2010). On *Antirrhinum majus* in concrete flower boxes in the centre of Teighmouth, South Devon (VC3) on 22 October 2009.

Telfer (2015). First record for 13 May 2008 on vegetation on mound of spoil at Battersea Power Station, Surrey. *D. escalerae* and *D. tamaninii* are very similar, but can be separated by the form of the left clasper. Both species are usually macropterous, but brachypters have been found in Britain.

Whitehead (2010). Record for 1 October 2006, Llandudno, Caernarvonshire on *Antirrhinum majus* L. Present in Worcestershire since 2004. Occurs on *A. majus*, *A. hispanicum* and *A. sempervirens* in

Worcestershire and Gloucestershire. Record for Evesham, Worcestershire, 12 October 2008 on *A. majus x A. sempervirens*. Adults and nymphs on the same hybrid at Winchcombe, Gloucestershire on 28 October 2009, and on *A. sempervirens*. Adults continued here until 10 December 2009. Brachypters seen on cultivated *Diascia* at Evesham.

Widgery (2010b). Repeat of above record for 2009, Winchcombe, Gloucestershire. Record for 17 August 2010 in a garden at Woodmancote, Gloucestershire.

Ryan (2012b). Record for 10 July 2010 on snap dragon, Walton Street, Jericho, Oxford. Record for 22 July 2010 near St Barnabas School, Jericho, Oxford.

Ryan (2016f). Records for Derbyshire and Warwickshire in July.

Ryan (2014d). Records for 12 July 2013, growing from the base of a wall, Jericho, Oxford (Oxfordshire); and 20 September 2013, in a garden, New Hinksey, Oxford (Berkshire). 9% (7 of 78) of specimens were brachypters (six females and one male).

Ryan (2015d). Records for East & West Gloucestershire.

#### 130F *Metopoplax fuscinervis* Stål (Lygaeidae)

Harvey (2008). First record by P. Harvey among specimens of *M. ditomoides*, indentified by P. Kirby, from West Thurrock Marshes, Essex, 2005.

Denton (2017a). Record for North Hampshire.

Denton (2017b). Record for Surrey.

## 344A Orthotylus caprai Wagner (Miridae)

Ryan (2008). First record 3 August 2006 on Wellingtonia, University Parks, Oxford. Also nymphs on 22 July 2007 and adults on 3 August 2007 and 5 September 2007.

Ryan (2013c). Repeat of above records, plus records for 2008, 2009, 2010 & 2011 at the same place.

Ryan (2015b). Records for 30 July 2014 on Wellingtonia, Oxford University Museum, Oxford and on Smooth Arizona Cypress, University Parks, Oxford; 25 July 2015, adults and nymphs, Smooth Arizona Cypress, University Parks; adults and nymphs, 27 July 2015, Leyland Cypress, University Parks; adults, 31 July 2015, on Monterey Cypress, University Parks and on Wellingtonia, Wellington Square, Oxford; adults and nymphs, 31 July 2015, Hinksey Park, Oxford (Berkshire) on both Wellingtonia and Leyland Cypress; adults, 15 August 2015, Wolvercote and Botley cemeteries, Oxford, on Wellingtonia; adults, 9 August 2015, Garth Park, Bicester, on Wellingtonia and Monterey Cypress; adults, 2 August 2015, Vale Park, Aylesbury, Buckinghamshire, on Leyland Cypress.

Ryan (2017c). Record for VC18.

## 050A Leptoglossus occidentalis Heidemann (Coreidae)

Clancy (2009). Record at MV light, Bird Observatory, Dungeness, Kent, 30 August 2008.

Witts & Russell (2009). First British record January 2007, Dorset. All but two records are at light and the bug has yet to be found in natural pine habitat. Many records for Kent in 2008 and 2009: August, September, October & November.

Deans (2010). Record for 19 September 2009, Bawdsey, East Suffolk, at MV light.

Knill-Jones (2010). Records for 27 & 30 October 2009, at MV light, Totland, Isle of Wight.

Malumphy & Reid (2007). Record for Weymouth College, 2007.

Malumphy, Botling, Bantock & Reid (2008). First record by B. Ford, Weymouth College, Dorset, January 2007. Then numerous adults found at light traps along the south coast of England. Since, it has been found at several inland locations in England, as far north as Kendal, Cumbria. All 35 British records are of adults in 15 vice-counties, in moth traps, in houses and one specimen found on a timber shipment from the USA, in August, September, October and November. There are no records on a live host plant in the UK, and breeding populations have not been found.

Bantock & Nau (2009). Record of a nymph, 26 October 2009, on the door of a house, Wroxall, Isle of Wight. Many more records of adults in 2009. Vast majority from southern England, including some inland in Norfolk, Nottinghamshire and Northamptonshire.

Bowdrey (2009b). Record at second floor office window, Colchester, North Essex, 2009. Records for Felixstowe, East Suffolk, 22 October 2008, 1 September 2009 & 12 October 2009; Ipswich, 8

September 2009; Dunwich Forest, 19 September 2009; Minsmere, 20 September 2009; Banford, 10 October 2009.

Dodd (2009). Record for 30 October 2009, in a toolstore, Pirbright, Surrey.

Widgery (2010a). Record for 14 September 2009, in a fifth floor hotel room in Birmingham, Warwickshire.

Wallhead (2010). Record for 13 June 2009, in a garden, Abbotswood Arboretum, East Gloucestershire.

O'Sullivan (2010). Record for 20 October 2009, in offices, Sandy, Bedfordshire.

Anonymous (2010). Since July 2009, FERA and Forest Research have received details of more than 100 sightings across 26 counties, north to Cumbria & Yorkshire and west to Cornwall.

Brooke & Nau (2010). Records for 24 September 2010, in a house, Darlington, Durham; 3 October 2010, Leeds; 7 October 2010, York; 25 September 2010, Bodmin, Cornwall; 8 October 2010, Lyme Regis, Dorset; in a house, Cwmbran, Monmouthshire; SE Ireland.

Campbell (2010). Record for 11 October 2010, Marchham, Berkshire, beaten from Norway Spruce.

Widgery (2010b). Records for 11 October 2010, Abbotswood Arboretum, East Gloucestershire; 9 September 2010, Churchdown, Gloucester, on a kitchen window.

Widgery (2011). Record for 1 November 2010, Stevenage, Hertfordshire.

Judd (2011). Record for VC60.

Ryan (2015d). Record for East Gloucestershire.

Ryan (2015c). Record for East Cornwall.

Ryan (2016c). Records for Wexford (VCH12) and Down (VCH38).

Ryan (2016d). Records for Isle of Wight and South Hampshire.

Ryan (2016e). Records for North and South Lincolnshire.

Ryan (2016i). Record for Shropshire.

Nelson (2015). Caught in a light trap at Kilkeel, Co Down in early October.

Nelson (2016). Record for September in Co Down.

## 094A Rhyparochromus vulgaris (Schilling) (Lygaeidae)

Nau (2010a). First record by N. Harvey, Rainham Marshes, South Essex. Very similar to *R. pini*, but lateral edges of pronotum narrowly pale along entire length in this species, but not in *R. vulgaris*. Also, the membrane of *R. vulgaris* has a clear apical mark.

Bantock, Notton & Barclay (2011). Record for 22 September 2011, Warwick Gardens, Peckham Rye, Surrey.

Bantock (2014d). Many adults under willow bark, Home Park, Hampton Court, Middlesex on 5.ix.2013. One adult under a log, Duke's Meadows, Chiswick, Middlesex on 27.viii.13.

Flanagan (2015b). Records for 2014: Hackney Marshes, Middlesex (25th July and 3rd August); Wanstead Flats, South Essex (2 September).

Ryan (2017d). Record for East Kent.

#### 237A Conostethus venustus (Fieber) (Miridae)

Flanagan (2011b). First record 31 May 2010, Centenary Riverside Nature Park, Rotherham, South Yorkshire, swept from a flower-rich, south-east-facing slope. The bug was frequent in areas containing *Tripleurospermum inodorum* (L.), scentless mayweed. Other sites found in VC63 on 6 June, 26 June, 14 August and 22 August 2010; in VC54 on 7 June and 27 July 2010; and in VC56 on 16 August 2010, on *T. inodorum* along a farm track.

Nau (2010a). Repeat of original records.

Flanagan (2010). Two more sites in South Yorkshire, on 26 June 2010 & 2 September 2010.

Flanagan (2011a). Repeat of first record.

Flanagan (2012). New records for South Yorkshire, Nottinghamshire (recorded into October) and East Yorkshire (along tracks, arable field margins, and on the coast).

Flanagan & Dolling (2011). British host plants include scentless mayweed, pineappleweed, scented mayweed, sea mayweed, chamomile and stinking chamomile. Record for mid-July 2011, Arnold Carr near Beverley, East Yorkshire, under scentless mayweed along the margins of seed rape fields. Also on pineappleweed along a farm track. Record for early-July 2011, Nottinghamshire,

along margins of rape field, adults and nymphs mostly on the ground. Record for 19 August 2011, East Yorkshire coast at Sand-le-mere, within 10m of the sea on the thinly vegetated ground.

Flanagan (2013c). Record for 2012, brown-field site, Stavely, Derbyshire. Record for late August, Thorne Moor (VC63) on scentless mayweed. Record for 13 November 2012, under a single scentless mayweed at a wind turbine site. Record for 14 November 2012, nymph and adult.

Ryan (2016e). Record for North Lincolnshire.

Foster (2016). Post-industrial site, adjacent to the River Don Navigation Canal to the North of Doncaster, South-west Yorkshire, August 2015.

Flanagan (2016). Record for Teeside, County Durham, 2012. Record sweeping a mix of scented and scentless mayweed within a margin of a field of oil seed rape close to a mineral extraction site near Hepburn, County Durham and within 2km distance of the River Tyne, 30.vi.2015.

## 299B Dicyphus pallidus (Herrich-Schaeffer) (Miridae)

Ryan (2010). First record 18 July 2009 on hedge woundwort, *Stachys sylvatica* L., in Homefield Wood, near Marlow, Buckinghamshire, along a shaded path. Also from same place on 24 & 26 June 2010. Four more shaded woodland sites on same plant: Hogmoor Copse, near Pangbourne, Berkshire (29 June 2010); Beacon Hill, Aston Rowant NNR, Oxfordshire (2 July 2010); Sidlings Copse, near Oxford (6 July 2010); and The Holies, near Streatley, Berkshire (8 July 2010).

Ryan (2011). Records for 10 July 2011, Whitley Common, Surrey; 14 July 2011, Pitstone Hill, Chiltern Hills, Herts; 18 July 2011; Great Pen Wood, North Hants; 23 July 2011, Thursley Common, Surrey and Ash Park Wood, near Ifold, West Sussex; 31 July 2011, Botany Bay Wood, near Chiddingfold, Surrey; 22 July 2009, Lashford Lane Wood, Dry Sandford, Berkshire.

Ryan (2013b). Records for 10 July 2012, Clifton Heath, Oxfordshire; 17 July 2012, Swyncombe Downs, Oxfordshire; 28 July 2012, Buckland Warren, Berkshire.

Nau (2010b). Records for 4 July 2010, Wendover Wood, on hedge woundwort, along an open ride margin, adult and nymphs; 20 July 2010, Maulden Wood, Bedfordshire; 27 July 2010, Knowle Park, Sevenoaks, West Kent, sweeping hedge woundwort; 6 August 2010, Toddington Manor, Bedfordshire.

Ryan (2015d). Records for East Gloucestershire.

Ryan (2016d). Record for North Hampshire.

Widgery (2015). Record for 22nd September, Bushcombe Wood, Near Woodmancote, Gloucestershire. Further records from the same county for the woods at Waterhatch, The Warren (near Winchcombe) and near Snowshill.

## 387A Closterotomus trivialis (A. Costa) (Miridae)

Bantock (2010a). First record summer 2008, North London garden, found by L. Counter on an ornamental shrub, *Hypericum* 'Hidcote'. Seen again in early June 2009 in large numbers on the same bush. Further colonies found in neighbouring streets. Bugs continued to be found throughout July.

Bantock (2010b). Found again in 2010 in same area, and another colony found in Battersea. More host plants recorded, including Paeonia, Hebe and Convolvulous.

Ryan (2012c). Record for 5 June 2011, New Marston Meadows, Oxford, beating trees.

Hodge (2012). Record for Natural History Museum Wild Garden, London, Middlesex, abundant by sweeping flowery grassland habitat, 22 May 2011.

Flanagan (2013a). Record for Owlthorpe Meadow, Sheffield (VC57), 1 June 2011, swept from flower-rich grassland. Record for Lake Windermere, Cumbria, 12 June 2012, male swept from meadowsweet-rich vegetation on lake shore.

Flanagan (2013b). Record for 12 June 2012, sweeping stands of meadowsweet-rich vegetation on gravelly, stony substrate beside Lake Windermere at Bowness (VC69 Westmoreland). Also in 2011, Sheffield (VC63 SW Yorkshire) [An error, is VC57].

Bantock (2013b). Four new sites in London area in 2011, Middlesex & Surrey. More host plants recorded: Umbelliferae, sallows, rosebay willowherb.

Flanagan (2013d). Record for 1 June 2011, Owlthorpe Meadow, SE Sheffield (VC64) [An error, is VC57].

Ryan (2015a). Nymphs beaten from hawthorn, New Marston Meadows, Oxford, 30 May 2014. Adult from ash at the same time, sweeping the meadow (10 June), from the head of meadowsweet and beaten from hedgerow (11 June), and sweeping a sparsely vegetated area (14 June).

Ryan (2016h). Records for 20 June 2015 in Oxford, Oxfordshire: several dozen adults on a single Honey Locust 'Sunburst', *Gleditsia triacanthos* L. f. *inermis* in University Parks, conspicuous on the foliage, and were apt to fly or run around the other sides of the leaves when approached; beating White willow, Salix alba L. (Saliceceae), New Marston Meadows; sweeping the unkempt area of my garden and in a fight interception trap (another specimen in the traps when emptied two weeks later). Records of nymphs (reared to adult), 17 May 2016, University Parks, taken from various plants, including Leyland Cypress, x *Cupressocyparis leylandii* (Jacks. Dallim.) Dallim. (Cupressaceae); Box, *Buxus sempervirens* L. (Buxaceae); and Rosemary, *Rosemarinus officinalis* L. (Lamiaceae).

Nelson (2016). Record from a photograph taken in Cork City on undeveloped land.

Ryan (2017e). Record for VC28 in June.

## 015A Tritomegas sexmaculatus (Rambur) (Cydnidae)

Bantock (2011). First record for Tyland Barn, Maidstone, Kent, April 2011, from a photograph taken by Jason Elmore. The bug was on large stands of black horehound. Adults and nymphs found in late August. Identified by the white streak along the anterior margin of the pronotum being long and uniformly tapered. It is short and not uniform in *T. bicolor*.

Bantock (2012). Record for Tyland Barn, Maidstone, Kent, August 2011 from a nymph reared on black Horehound, *Ballota nigra*.

Greenslade et al. (2013). Record for Bingley Island, Canterbury, Kent, July-August 2012.

Bantock (2014b). Further records from Kent. In all cases bugs were associated with stands of Black Horehound, *Ballota nigra*: Dartford, 27.ix.2012; Bingley's Island, Canterbury, 22.viii.2012 (nymphs reared to adult); Faversham, 24.vi.2013; Minster Marshes, 29.ix.2013; Westbere, 2013.

Bantock (2015). First record for Middlesex: Twickenham College, 14.viii.2014.

Barnard (2016). Darland Banks, Kent, 2015, early instar nymphs found on White Dead-nettle.

## 039B Rhaphigaster nebulosa (Poda) (Pentatomidae)

Bantock (2012). Record for Warwick Gardens, Peckham, London, 23 September 2011 on lilac.

Hodge (2014). Record for 13 September 2013, Warwick Gardens, Peckham, Surrey, beaten off mixed foliage.

Bantock, Notton & Barclay (2011). Records for Rainham Marshes, South Essex, September 2010; 18, 19 & 25 September & 1 October 2011, Lewisham garden, south London (West Kent); 2011, Warwick Gardens, Peckham Rye, early instar nymphs on Common Lilac (*Syringa vulgaris*), mid-July, final instar nymphs, mid-August, and adults in September.

Bantock (2014c). Further records from the London area: Wembley, 2012-2013; Warwick Gardens, Surrey, 2012-2013, adults and nymphs; Earl's Court, Middlesex, 21.vii.10; Newham, Essex, adult and nymph on 3.ix.2013.

## 482A Glaenocorisa cavifrons (Thomson) (Corixidae)

Nelson (2013). Record of G. p. cavifrons, Islay, July 2011.

Ryan (2013a). Report of Glaenocorisa propinqua cavifrons being raised to specific rank.

Ryan (2014a). *G. cavifrons*: records for Cumberland, Westmoreland, Yorkshire, Lancashire, Cheshire, Cambridgeshire, Hampshire, Somerset and Scotland.

Savage (1989). The bug can be separated from its congener by the arrangement of the palar pegs.

## 174A Coranus woodroffei P.V. Putshkov (Reduviidae)

Eversham & Telfer (1995). Record from road verges, Breckland, East Anglia.

Ryan (2014c). *Coranus woodroffei* arose as a new species when it was separated from *Coranus subapterus* (De Geer) over thirty years ago, but this was not advertised in the British entomological literature until Ryan (2012a). Records from a personal collection, swept from ericaceous heath, Thursley & Witley Commons, Surrey in August 2010 & 2012.

Ryan (2016e). Record for North Lincolnshire.

Ryan (2016g). Records for South Hampshire and West Suffolk in July and September.

Ryan (2017e). Records for VC27 & VC28 in September.

174B Coranus aethiops Jakovlev (Reduviidae)

Foster (2013). First record 20 September 1979, Thorne Moor, South Yorkshire (SE71) on ground beneath heather. Also in 1990 on Hatfield Moor (SE60) in water traps set in dry, bare peat surrounded by heather. Specimens misidentified at the time as *C. subapterus*, and was considered a melanic form of this species. It can be distinguished from its British congeners by its black abdominal venter, and by the spoon-shaped black parameres.

028A Dyroderes umbraculatus (Fabricius) (Pentatomidae)

Nau, Merrifield & Merrifield (2014). First record 29 June 2013, Perivale Wood Local Nature Reserve, Middlesex by R.K. & R. M. Merrifield working mixed hedgerow vegetation.

Bantock (2016a). Record for Southampton Common, South Hampshire on 16.vii.15 and 7.ix.15.

344B *Orthotylus junipericola* Linnavuori (Miridae)

Hodge (2008, 2009 & 2014). First record 15 September 2008, Kingston-upon-Thames, Surrey, beaten off cypress in a cemetery. Originally thought to be *O. caprai*.

Denton (2015). Records for Aldershot Military Cemetery, North Hampshire, 13 August 2014, and Badshot Lea graveyard, Surrey, 15 August 2014, both on cypress trees.

Bantock (2014a). Records for Kingston Cemetery (VC17), 15.ix.2008; Morden Park (VC17), 23.vii.2009; Chiswick (VC21), 2011; Cheshunt (VC20), 3.ix.2012; Crystal Palace (VC17), 19.vii.2013. In all cases bugs were beaten from *Cupressus*.

409A *Tropidosteptes pacificus* (Van Duzee) (Miridae)

Bantock (2013a). Alexandra Park, Middlesex, 11 June & 20 September 2012, swept from ash, *Fraxinus excelsior*, by T. Bantock.

Bantock (2014d). Found in malaise trap material collected in the wildlife garden of the Natural History Museum, Middlesex between 3.x.2012 and 10.x.2012.

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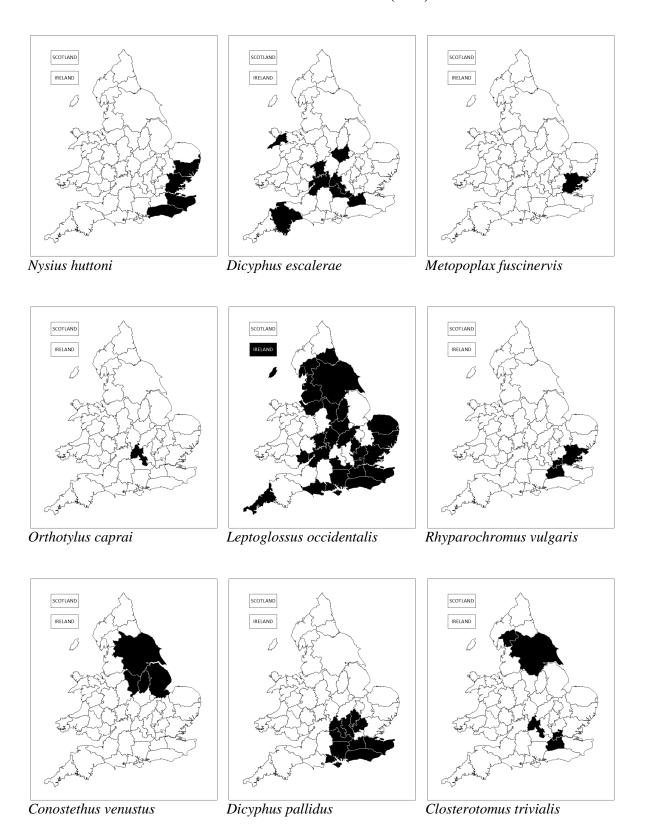


FIGURE 1. The county distributions of the described species (Ryan, 2014 a & 2014b).

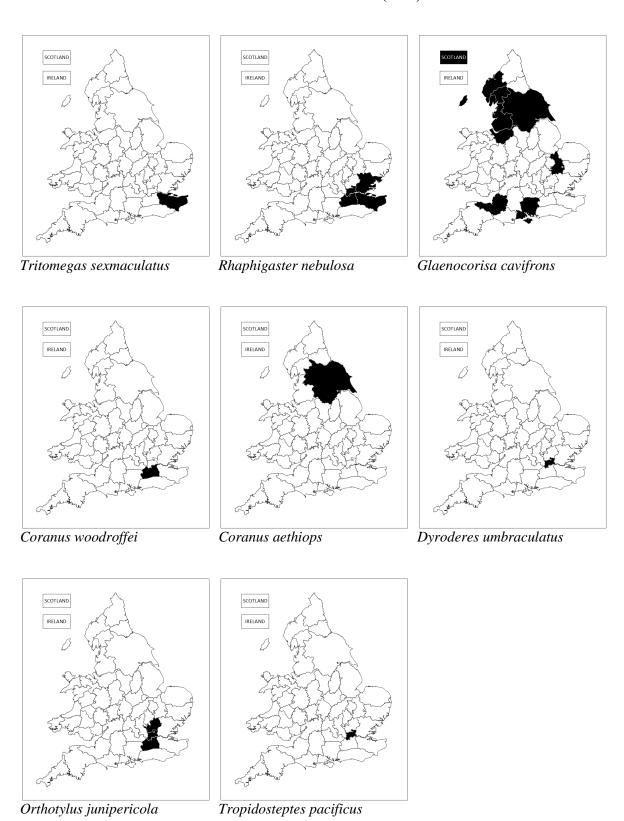


FIGURE 1 (CONTINUED).

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR SOMERSET INTO VICE-COUNTY LISTS FOR VC5 AND VC6

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#### Introduction

The list of Hemiptera-Heteroptera for Somerset in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian South Somerset (VC5) and Watsonian North Somerset (VC6).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a & 2018b). The resulting vice-county lists include 281 records, compared with 298 for the original Somerset list. The list for Somerset as a whole has shortened by 90, the decrease arising from five species added to the list and 95 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Somerset are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking some of the records relate to the references from which they were derived, as indicated in Table 1. The unmarked records are from Blathwayt (1906).

### The divided records

Aradidae		
Aneurus laevis (Fabricius) [DELETED]	-	-
Aradus depressus (Fabricius) [DELETED]	-	-
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus)	-	VC6
Cyphostethus tristriatus (Fabricius) [DELETED]	-	-
Elasmostethus interstinctus (Linnaeus) [DELETED]	-	_
Elasmucha grisea (Linnaeus) [DELETED]	-	-
CYDNIDAE		
Adomerus biguttatus (Linnaeus) [DELETED]	-	-
Legnotus limbosus (Geoffroy)	VC5	-
Legnotus picipes (Fallén)	VC5 (14)	-
Sehirus luctuosus Mulsant & Rey [DELETED]	-	-
Tritomegas bicolor (Linnaeus)	-	VC6
THYREOCORIDAE		
Thyreocoris scarabaeoides (Linnaeus)	-	VC6
SCUTELLERIDAE		
Eurygaster maura (Linnaeus) [DELETED]	_	_
Eurygaster testudinaria (Geoffroy)	_	VC6 (15)
/8		()

PENTATOMIDAE		
Aelia acuminata (Linnaeus)	VC5	_
Dolycoris baccarum (Linnaeus)	VC5 (2)	VC6
Eurydema oleracea (Linnaeus) [DELETED]	-	-
Eysarcoris venustissimus (Schrank) [DELETED]	-	-
Neottiglossa pusilla (Gmelin)	VC5	-
Palomena prasina (Linnaeus)	VC5	VC6 (16)
Pentatoma rufipes (Linnaeus)	VC5 (2)	VC6
Peribalus strictus (Fabricius)	-	VC6
Picromerus bidens (Linnaeus) [DELETED]	-	-
Piezodorus lituratus (Fabricius)	VC5 (1)	VC6
Podops inunctus (Fabricius)	VC5 (26)	VC6
Rhacognathus punctatus (Linnaeus) [DELETED]	-	-
Sciocoris cursitans (Fabricius)	-	VC6
Troilus luridus (Fabricius)	VC5 (1)	-
Zicrona caerulea (Linnaeus)	-	VC6
Coreidae		
Arenocoris fallenii (Schilling)	_	VC6 (17)
Ceraleptus lividus Stein	_	VC6 (17)
Coreus marginatus (Linnaeus)	VC5 (1)	-
Coriomeris denticulatus (Scopoli)	VC5	_
Enoplops scapha (Fabricius) [DELETED]	_	_
Syromastus rhombeus (Linnaeus)	-	VC6
ALYDIDAE		
Alydus calcaratus (Linnaeus) [DELETED]	_	_
Atyaus carcaraus (Elillacus) [DELETED]	_	_
RHOPALIDAE		
Chorosoma schillingii (Schilling)	-	VC6 (17)
Corizus hyoscyami (Linnaeus)	-	VC6 (9)
Liorhyssus hyalinus (Fabricius) [NEW]	-	VC6 (11)
Myrmus miriformis (Fallén)	VC5 (1)	-
Rhopalus parumpunctatus Schilling [DELETED]	-	-
Rhopalus subrufus (Gmelin)	VC5 (1)	-
Stictopleurus abutilon (Rossi)	-	VC6 (10)
STENOCEPHALIDAE		
Dicranocephalus agilis (Scopoli) [DELETED]	-	-
LYGAEIDAE		
Acompus rufipes (Wolff) [DELETED]	-	-
Chilacis typhae (Perris)	VC5 (2)	-
Cymus claviculus (Fallén) [DELETED]	-	-
Cymus glandicolor Hahn	-	VC6 (14)
Drymus ryeii Douglas & Scott [DELETED]	- NG5 (2)	-
Drymus sylvaticus (Fabricius)	VC5 (2)	VC6
Gastrodes grossipes (De Geer) [DELETED]	-	-
Graptopeltus lynceus (Fabricius) [DELETED]	-	-
Heterogaster artemisiae Schilling [DELETED]	-	-
Heterogaster urticae (Fabricius) [DELETED]	- VC5 (2)	-
Ischnocoris angustulus (Boheman)	VC5 (2)	- VC6 (15)
Ischnodemus sabuleti (Fallén)	- VC5 (1)	VC6 (15)
Kleidocerys ericae (Horváth) Kleidocerys resedae (Panzer) [DELETED]	VC5 (1)	-
Kieluoterys reseaue (Fallzer) [DELETED]	-	-

Lygaeidae (Continued)		
Macrodema microptera (Curtis)	VC5 (1)	_
Macroplax preyssleri (Fieber)	-	VC6 (18)
Megalonotus praetextatus (Herrich-Schaeffer)	_	VC6 (17)
Nysius ericae (Schilling) [NEW]	VC5 (26)	-
Nysius thymi (Wolff) [DELETED]	-	_
Pachybrachius fracticollis (Schilling)	VC5	_
Peritrechus geniculatus (Hahn)	VC5	_
Plinthisus brevipennis (Latreille)	VC5 (1)	_
Rhyparochromus pini (Linnaeus)	V C3 (1)	VC6 (19)
Scolopostethus affinis (Schilling)	VC5 (1)	VC6 (17)
Scolopostethus decoratus (Hahn)	VC5 (1)	VCO
•	VC3 (1)	-
Scolopostethus puberulus Horváth [DELETED]	-	-
Scolopostethus thomsoni Reuter [DELETED]	- VIC5 (2)	-
Stygnocoris fuligineus (Geoffroy)	VC5 (2)	-
Stygnocoris rusticus (Fallén)	- NG5 (0)	VC6
Stygnocoris sabulosus (Schilling)	VC5 (2)	-
Trapezonotus arenarius (Linnaeus)	-	VC6 (20)
Trapezonotus desertus Seidenstücker	-	VC6 (21)
_		
BERYTIDAE		
Berytinus clavipes (Fabricius) [DELETED]	-	-
Berytinus minor (Herrich-Schaeffer)	-	VC6
Berytinus montivagus (Meyer-Dür) [DELETED]	-	-
Berytinus signoreti (Fieber)	VC5 (2)	-
Gampsocoris punctipes (Germar)	VC5 (1)	-
Metatropis rufescens (Herrich-Schaeffer)	-	VC6 (12)
Neides tipularius (Linnaeus) [DELETED]	-	-
_		
PIESMATIDAE		
Parapiesma quadratum (Fieber)	VC5 (1)	-
Piesma maculatum (Laporte)	VC5 (1)	-
_		
TINGIDAE		******
Acalypta brunnea (Germar)	-	VC6 (19)
Acalypta nigrina (Fallén)	-	VC6 (5)
Acalypta parvula (Fallén)	VC5 (2)	VC6
Agramma laetum (Fallén) [DELETED]	-	-
Campylosteira verna (Fallén) [DELETED]	-	-
Catoplatus fabricii (Stål) [DELETED]	-	-
Derephysia foliacea (Fallén)	VC5 (1)	-
Dictyla convergens (Herrich-Schaeffer) [DELETED]	-	-
Dictyonota strichnocera Fieber	VC5 (1)	-
Physatocheila dumetorum (Herrich-Schaeffer)	VC5 (1)	VC6
Physatocheila smreczynskii China	_	VC6
Stephanitis rhododrendri Horváth[DELETED]	_	-
Tingis ampliata (Herrich-Schaeffer)	VC5 (26)	VC6 (16)
Tingis cardui (Linnaeus)	VC5 (2)	VC6
Tingis reticulata Herrich-Schaeffer	VC5 (2)	-
2	. 03 (2)	
REDUVIIDAE		
Empicoris culiciformis (De Geer) [DELETED]	-	_
Empicoris vagabundus (Linnaeus) [DELETED]	_	_
Reduvius personatus (Linnaeus)	_	VC6

Nabidae		
Himacerus apterus (Fabricius) [DELETED]	-	-
Himacerus boops (Schiødte)	-	VC6 (3)
Himacerus major (A. Costa)	VC5 (1)	VC6
Himacerus mirmicoides (O. Costa)	VC5 (1)	VC6
Nabis brevis Scholtz [DELETED]	-	-
Nabis ericetorum Scholtz [DELETED]	-	-
Nabis ferus (Linnaeus)	VC5 (1)	-
Nabis flavomarginatus Scholtz	-	VC6
Nabis limbatus Dahlbom	VC5 (1)	-
Nabis lineatus Dahlbom [DELETED]	-	-
Nabis rugosus (Linnaeus)	VC5 (1)	VC6
ANTHOCORIDAE		
Acompocoris pygmaeus (Fallén) [DELETED]	_	_
Anthocoris confusus Reuter	VC5 (1)	_
Anthocoris gallarumulmi (De Geer) [DELETED]	VC3 (1)	_
Anthocoris gattarumumi (De Geer) [DELETED]  Anthocoris nemoralis (Fabricius)	-	VC6
Anthocoris nemorum (Linnaeus)	VC5 (1)	VC6
Anthocoris visci Douglas [DELETED]	VC3 (1)	VCO
Buchananiella continua (F.B. White)	-	- VC6 (27)
· · · · · · · · · · · · · · · · · · ·	-	VC6 (27) VC6 (3)
Cardiastethus fasciiventris (Garbiglietti) Lyctocoris campestris (Fabricius)	-	VC6 (3) VC6
Orius majusculus (Reuter)	VC5 (1)	VCO
· · · · · · · · · · · · · · · · · · ·	VC3 (1)	-
Orius niger (Wolff) [DELETED]  Totaggil Long his coming (Hamish Schooffer)	- VC5 (1)	-
Tetraphleps bicuspis (Herrich-Schaeffer)	VC5 (1)	- VIC6 (2)
Xylocoridea brevipennis Reuter	-	VC6 (3)
Xylocoris cursitans (Fallén) [DELETED]	-	- VC6
Xylocoris galactinus (Fieber)	-	VC6
CIMICIDAE		
Cimex lectularius Linnaeus	-	VC6
Oeciacus hirundinis (Lamarck)	VC5 (22)	VC6 (6)
MICROPHYSIDAE		
Loricula elegantula (Baerensprung)	VC5 (1)	VC6
Loricula pselaphiformis Curtis	VC5 (1) VC5 (2)	VC6
Loricuia pseiapiijormis Curus	VC3 (2)	VCO
MIRIDAE		
Acetropis gimmerthalii (Flor)	VC5 (26)	VC6
Adelphocoris lineolatus (Goeze)	VC5 (1)	-
Adelphocoris seticornis (Fabricius)	-	VC6 (15)
Adelphocoris ticinensis (Meyer-Dür) [DELETED]	-	-
Amblytylus nasutus (Kirschbaum) [NEW]	VC5 (26)	-
Apolygus lucorum (Meyer-Dür)	VC5	VC6 (7)
Apolygus spinolae (Meyer-Dür)	VC5 (2)	-
Asciodema obsoleta (Fieber)	VC5 (1)	-
Atractotomus magnicornis (Fallén)	VC5 (1)	-
Atractotomus mali (Meyer-Dür)	-	VC6
Blepharidopterus angulatus (Fallén)	VC5 (1)	VC6
Bryocoris pteridis (Fallén)	VC5 (1)	-
Calocoris alpestris (Meyer-Dür) [DELETED]	-	-
Calocoris roseomaculatus (De Geer)	_	VC6
Camptozygum aequale (Villers) [DELETED]	_	-
Campyloneura virgula (Herrich-Schaeffer)	VC5 (1)	VC6
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MIRIDAE (CONTINUED)		
Capsodes sulcatus (Fieber)	_	VC6
Capsus ater (Linnaeus)	VC5 (26)	VC6
Capsus wagneri (Remane)	-	VC6 (23)
Charagochilus gyllenhalii (Fallén) [DELETED]	_	-
Chlamydatus pullus (Reuter) [DELETED]	_	_
Chlamydatus saltitans (Fallén)	VC5 (2)	_
Closterotomus fulvomaculatus (De Geer) [DELETED]	-	_
Closterotomus norwegicus (Gmelin)	VC5 (1)	VC6
Compsidolon salicellum (Herrich-Schaeffer)	VC5 (1)	-
Conostethus roseus (Fallén)	-	VC6 (16)
Cyllecoris histrionius (Linnaeus)	VC5	-
Deraeocoris lutescens (Schilling)	-	VC6
Deraeocoris ruber (Linnaeus)	VC5 (2)	VC6
Dichrooscytus rufipennis (Fallén) [DELETED]	-	-
Dicyphus annulatus (Wolff)	VC5 (1)	_
Dicyphus constrictus (Boheman) [DELETED]	-	_
Dicyphus epilobii Reuter	VC5 (1)	VC6
Dicyphus errans (Wolff)	-	VC6
Dicyphus globulifer (Fallén) [DELETED]	_	-
Dicyphus pallicornis (Fieber) [DELETED]	_	_
Dicyphus stachydis J. Sahlberg	VC5 (1)	_
Dryophilocoris flavoquadrimaculatus (De Geer)	-	VC6
Globiceps flavomaculatus (Fabricius)	_	VC6
Grypocoris stysi (Wagner)	_	VC6
Hallodapus montandoni Reuter	_	VC6 (17)
Harpocera thoracica (Fallén)	_	VC6
Heterocordylus genistae (Scopoli)	VC5 (8)	-
Heterocordylus tibialis (Hahn) [DELETED]	-	_
Heterotoma planicornis (Pallas)	VC5 (1)	VC6
Hoplomachus thunbergii (Fallén) [DELETED]	-	_
Hypseloecus visci (Puton)	VC5 (13)	_
Leptopterna dolabrata (Linnaeus)	VC5 (1)	VC6
Leptopterna ferrugata (Fallén)	VC5 (26)	VC6
Liocoris tripustulatus (Fabricius)	VC5 (1)	VC6
Lopus decolor (Fallén)	VC5 (1)	_
Lygocoris pabulinus (Linnaeus)	VC5 (1)	VC6
Lygocoris rugicollis (Fallén)	VC5 (1)	_
Lygus rugulipennis Poppius	VC5 (26)	VC6 (16)
Macrotylus paykullii (Fallén)	VC5 (1)	-
Malacocoris chlorizans (Panzer)	VC5 (1)	VC6
Mecomma ambulans (Fallén)	VC5 (1)	-
Megaloceroea recticornis (Geoffroy) [DELETED]	-	-
Miridius quadrivirgatus (A. Costa) [DELETED]	-	-
Miris striatus (Linnaeus) [DELETED]	-	-
Monalocoris filicis (Linnaeus)	VC5 (1)	-
Neolygus contaminatus (Fallén)	VC5 (1)	VC6
Neolygus viridis (Fallén)	-	VC6 (16)
Notostira elongata (Geoffroy)	VC5 (2)	VC6
Orthocephalus saltator (Hahn)	VC5 (26)	-
Orthonotus rufifrons (Fallén)	VC5 (2)	-
Orthotylus adenocarpi (Perris)	-	VC6
Orthotylus concolor (Kirschbaum)	-	VC6 (16)
Orthotylus ericetorum (Fallén)	VC5 (1)	-
Orthotylus flavinervis (Kirschbaum) [DELETED]	-	-

MIRIDAE (CONTINUED)		
Orthotylus flavosparsus (C.R. Sahlberg)	VC5 (1)	-
Orthotylus marginalis Reuter [DELETED]	-	-
Orthotylus ochrotrichus Fieber [NEW]	VC5 (2)	-
Orthotylus tenellus (Fallén) [DELETED]	-	-
Pantilius tunicatus (Fabricius) [DELETED]	-	-
Parapsallus vitellinus (Scholtz) [DELETED]	-	-
Phoenicocoris obscurellus (Fallén) [DELETED]	-	-
Phylus coryli (Linnaeus)	-	VC6 (16)
Phylus melanocephalus (Linnaeus) [DELETED]	-	-
Phytocoris longipennis Flor	VC5 (1)	VC6
Phytocoris populi (Linnaeus) [DELETED]	-	-
Phytocoris reuteri Saunders [DELETED]	-	-
Phytocoris tiliae (Fabricius)	VC5 (1)	VC6
Phytocoris ulmi (Linnaeus)	VC5 (1)	VC6
Phytocoris varipes Boheman	VC5 (1)	VC6
Pinalitus cervinus (Herrich-Schaeffer)	VC5 (1)	-
Pinalitus rubricatus (Fallén) [DELETED]	-	-
Pinalitus viscicola (Puton) [DELETED]	-	-
Pithanus maerkelii (Herrich-Schaeffer)	VC5 (1)	-
Plagiognathus arbustorum (Fabricius)	VC5 (1)	VC6
Plagiognathus chrysanthemi (Wolff)	VC5 (26)	VC6
Platycranus bicolor (Douglas & Scott) [DELETED]	-	-
Polymerus nigrita (Fallén) [DELETED]	-	-
Polymerus unifasciatus (Fabricius) [DELETED]	-	-
Psallodema fieberi (Fieber) [DELETED]	-	-
Psallus ambiguus (Fallén)	-	VC6
Psallus flavellus Stichel [DELETED]	-	-
Psallus haematodes (Gmelin)	VC5 (1)	VC6
Psallus lepidus Fieber [DELETED]	-	-
Psallus salicis (Kirschbaum)	VC5 (1)	VC6
Psallus varians (Herrich-Schaeffer) [DELETED]	-	-
Pseudoloxops coccineus (Meyer-Dür) [DELETED]	-	-
Rhabdomiris striatellus (Fabricius) [DELETED]	-	-
Salicarus roseri (Herrich-Schaeffer)	-	VC6 (16)
Stenodema calcarata (Fallén)	VC5 (26)	VC6
Stenodema holsata (Fabricius)	VC5 (1)	-
Stenodema laevigata (Linnaeus)	VC5 (1)	VC6
Stenotus binotatus (Fabricius)	VC5 (26)	VC6
Sthenarus rotermundi (Scholtz)	-	VC6
Strongylocoris luridus (Fallén) [DELETED]	-	-
Systellonotus triguttatus (Linnaeus) [DELETED]	-	-
Tinicephalus hortulanus (Meyer-Dür) [DELETED]	-	-
Tytthus pygmaeus (Zetterstedt)	-	VC6 (24)
Saldidae		
Chartoscirta cincta (Herrich-Schaeffer)	-	VC6 (4)
Halosalda lateralis (Fallén) [DELETED]	-	-
Salda littoralis (Linnaeus) [DELETED]	-	-
Saldula arenicola (Scholtz) [DELETED]	-	-
Saldula c-album (Fieber) [DELETED]	-	-
Saldula orthochila (Fieber)	VC5	-
Saldula pilosella (Thomson) [DELETED]	-	-
Saldula saltatoria (Linnaeus)	VC5	-

MESOVELIIDAE  Mesovelia furcata Mulsant & Rey	VC5 (25)	VC6 (25)
HEBRIDAE  Hebrus ruficeps Thomson [DELETED]	-	-
HYDROMETRIDAE		
Hydrometra stagnorum (Linnaeus)	VC5 (25)	VC6 (25)
VELIIDAE		
Microvelia reticulata (Burmeister)	VC5 (25)	VC6 (25)
<i>Velia caprai</i> Tamanini <i>Velia saulii</i> Tamanini	VC5 (25)	VC6 (25)
vena saum Tamanini	VC5 (25)	-
GERRIDAE		
Aquarius najas (De Geer)	VC5 (25)	VC6
Gerris argentatus Schummel	VC5 (25)	
Gerris gibbifer Schummel	VC5 (1)	
Gerris lacustris (Linnaeus)	VC5 (25)	
Gerris odontogaster (Zetterstedt) Gerris thoracicus Schummel	VC5 (25) VC5 (25)	VC6 (25)
Gerris inoracicus Schummer	VC3 (23)	-
NEPIDAE		
Nepa cinerea Linnaeus	VC5 (25)	VC6 (25)
Ranatra linearis (Linnaeus)	VC5 (25)	VC6 (25)
Naucoridae		
Ilyocoris cimicoides (Linnaeus)	VC5 (25)	VC6 (25)
APHELOCHEIRIDAE	VICE (25)	MOC (05)
Aphelocheirus aestivalis (Fabricius)	VC5 (25)	VC6 (25)
NOTONECTIDAE		
Notonecta glauca Linnaeus	VC5 (25)	VC6 (25)
Notonecta maculata Fabricius	-	VC6 (25)
Notonecta obliqua Thunberg	VC5 (25)	VC6 (25)
Notonecta viridis Delcourt	VC5 (25)	VC6 (25)
PLEIDAE		
Plea minutissima Leach	VC5 (25)	VC6 (25)
CORIXIDAE		
Arctocorisa carinata (C.R. Sahlberg) [NEW]	_	VC6 (4)
Arctocorisa germari (Fieber) [DELETED]	_	-
Callicorixa praeusta (Fieber)	VC5 (25)	VC6 (25)
Corixa affinis Leach	-	VC6 (25)
Corixa panzeri Fieber	VC5 (25)	VC6 (4)
Corixa punctata (Illiger)	VC5 (25)	VC6 (25)
Cymatia bonsdorffii (C.R. Sahlberg)	-	VC6 (4)
Cymatia coleoptrata (Fabricius)	VC5 (25)	VC6
Glaenocorisa cavifrons (Thomson) [DELETED]	-	-
Glaenocorisa propinqua (Fieber)	-	VC6 (4)
Hesperocorixa castanea (Thomson)	- VC5 (25)	VC6 (25)
Hesperocorixa linnaei (Fieber)	VC5 (25)	VC6 (25) VC6 (25)
Hesperocorixa moesta (Fieber)	-	v CO (23)

#### CORIXIDAE (CONTINUED)

OKIMBIE (COMMICED)		
Hesperocorixa sahlbergi (Fieber)	VC5 (25)	VC6 (25)
Micronecta poweri (Douglas & Scott) [DELETED]	-	-
Micronecta scholtzi (Fieber)	-	VC6 (25)
Paracorixa concinna (Fieber)	VC5 (25)	-
Sigara distincta (Fieber)	-	VC6 (25)
Sigara dorsalis (Leach)	VC5 (25)	VC6 (25)
Sigara falleni (Fieber)	VC5 (25)	VC6 (25)
Sigara fossarum (Leach)	-	VC6 (25)
Sigara lateralis (Leach)	VC5 (25)	VC6 (25)
Sigara limitata (Fieber) [DELETED]	-	-
Sigara nigrolineata (Fieber)	VC5 (25)	-
Sigara scotti (Douglas & Scott) [DELETED]	-	-
Sigara semistriata (Fieber)	-	VC6 (25)
Sigara stagnalis (Leach)	VC5 (25)	VC6 (25)
Sigara venusta (Douglas & Scott)	VC5 (25)	-

TABLE 1. The references relating to the numbers in the list of divided records.

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	Brown (1929) Brown (1930) Daltry (1932) Walton (1936) Bedwell (1934) Godfrey (1977) Hey (1937) Drake (2012) Evans & Edmondson (2005) Boyd, Boyd & Evans (2005) Denton (2017) Morley (1944)	(15) Massee (1962) (16) Wightman (1968) (17) Southgate (1955) (18) Dolling (1970) (19) Kirby (1997) (20) Woodroffe (1960) (21) Judd (1998) (22) George (1989) (23) Hodge (1990) (24) Scudder (1957b) (25) Huxley (2003) (26) Hollier (1988)
(10) (11)	Boyd, Boyd & Evans (2005) Denton (2017)	(24) Scudder (1957b) (25) Huxley (2003)
(12) (13) (14)	Gibbs & Nau (2005) Scudder (1957a)	(26) Hollier (1988) (27) Whitehead (2005)

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- I am most grateful to Keith Alexander for making me aware of the Somerset Archaeological & Natural History Society, which led to the discovery of Hollier (1988).

# AN ADDENDUM TO SAUNDERS' SYNOPSIS OF BRITISH HEMIPTERA-HETEROPTERA AND DOUGLAS & SCOTT'S BRITISH HEMIPTERA-HETEROPTERA

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Douglas & Scott (1865) was the first textbook that covered the British Hemiptera-Heteroptera as a whole. Alas, it was rather incomplete and was subject to many additions and corrections in the following years, necessitating the publication of the Synopsis of Saunders (1875a, 1875b & 1876) to present a more complete British list. Further additions and corrections occurred over the 17 years till the publication of Saunders (1892). In order that bug records for this period may be correctly interpreted, I present below a checklist of the modern names of the British Hemiptera-Heteroptera with the corresponding names used as headings for the species accounts in the Synopsis and, in square brackets, those in Douglas & Scott (1865) where different. The name correspondences were derived from Saunders (1892), Butler (1923) and the addenda to these works (Ryan, 2016a & 2018a). Multiple correspondences due to ambiguous species names are not shown here, but are documented in Ryan (2015, 2016b, 2018b & 2018c).

#### ARADIDAE

Aneurus avenius (Dufour) -

Aneurus laevis (Fabricius)

Aradus aterrimus Fieber

Aneurus laevis

Aradus aterrimus

Aradus betulae (Linnaeus) -Aradus cinnamomeus Panzer -

Aradus corticalis (Linnaeus)

Aradus corticalis (Aradus corticalis Aradus depressus (Fabricius)

Aradus depressus (Fabricius)

ACANTHOSOMATIDAE

Acanthosoma haemorrhoidale (Linnaeus)

Cyphostethus tristriatus (Fabricius)

Acanthosoma haemorrhoidale

Acanthosoma tristriatum [pictum]

Elasmostethus interstinctus (Linnaeus) Acanthosoma dentatum

Elasmucha ferrugata (Fabricius) -

Elasmucha grisea (Linnaeus) Acanthosoma griseum

CYDNIDAE

Adomerus biguttatus (Linnaeus) Sehirus biguttatus

Byrsinus flavicornis (Fabricius) -

Canthophorus impressus (Horváth) Sehirus dubius

Geotomus punctulatus (A. Costa)

Legnotus limbosus (Geoffroy)

Legnotus picipes (Fallén)

Sehirus picipes [-]

Sehirus luctuosus Mulsant & Rey

Tritomegas bicolor (Linnaeus)

Geotomus punctulatus [-]

Sehirus albomarginatus

Sehirus picipes [-]

Sehirus morio

Sehirus bicolor

Tritomegas sexmaculatus (Rambur)

THYREOCORIDAE

Thyreocoris scarabaeoides (Linnaeus) Corimelaena scarabaeoides [Scarabaeoides]

SCUTELLERIDAE

Eurygaster austriaca (Schrank) Eurygaster niger [hottentottus]

Eurygaster maura (Linnaeus) Eurygaster maurus

Eurygaster testudinaria (Geoffroy) -

Odontoscelis fuliginosa (Linnaeus) Odontoscelis fuliginosus

Odontoscelis lineola Rambur

PENTATOMIDAE

Aelia acuminata (Linnaeus)

Carpocoris mediterraneus Tamanini

Carpocoris purpureipennis (De Geer) Chlorochroa juniperina (Linnaeus)

Dolycoris baccarum (Linnaeus)

Dyroderes umbraculatus (Fabricius)

Eurydema dominulus (Scopoli) Eurydema oleracea (Linnaeus)

Eurydema ornata (Linnaeus)

Eysarcoris aeneus (Scopoli)

Eysarcoris venustissimus (Schrank)

Jalla dumosa (Linnaeus)

Neottiglossa pusilla (Gmelin)

Nezara viridula (Linnaeus)

Palomena prasina (Linnaeus)

Pentatoma rufipes (Linnaeus)

Peribalus strictus (Fabricius) Picromerus bidens (Linnaeus)

Piezodorus lituratus (Fabricius)

Podops inunctus (Fabricius)

Rhacognathus punctatus (Linnaeus)

Rhaphigaster nebulosa (Poda)

Sciocoris cursitans (Fabricius)

Troilus luridus (Fabricius)

Zicrona caerulea (Linnaeus)

COREIDAE

Arenocoris fallenii (Schilling)

Arenocoris waltlii (Herrich-Schaeffer)

Bathysolen nubilus (Fallén) Ceraleptus lividus Stein

Coreus marginatus (Linnaeus) Coriomeris denticulatus (Scopoli)

Enoplops scapha (Fabricius)

Gonocerus acuteangulatus (Goeze) Leptoglossus occidentalis Heidemann

Spathocera dalmanii (Schilling)

Syromastus rhombeus (Linnaeus)

ALYDIDAE

Alydus calcaratus (Linnaeus)

RHOPALIDAE

Brachycarenus tigrinus (Schilling) Chorosoma schillingii (Schilling)

Corizus hyoscyami (Linnaeus)

Liorhyssus hyalinus (Fabricius)

Myrmus miriformis (Fallén)

Rhopalus maculatus (Fieber)

Rhopalus parumpunctatus Schilling

Rhopalus rufus Schilling

Rhopalus subrufus (Gmelin) Stictopleurus abutilon (Rossi)

Stictopleurus punctatonervosus (Goeze)

**PYRRHOCORIDAE** 

Pyrrhocoris apterus (Linnaeus)

Aelia acuminata

Pentatoma baccarum [nigricorne]

Pentatoma juniperinum

Pentatoma verbasci [baccarum]

Strachia festiva [ornata]

Strachia oleracea

Eysarcoris aeneus

Eysarcoris melanocephalus

Jalla dumosa

Aelioides inflexus [inflexa]

Pentatoma viridissima [dissimile]

Tropicoris rufipes

Pentatoma vernale

Picromerus bidens

Piezodorus lituratus [purpureipennis]

Podops inunctus

Rhacognathus punctatus

Sciocoris terreus

Podisus luridus [Asopus]

Zicrona coerulea

Pseudophloeus Fallenii [Falléni]

Bathysolen nubilus [Pseudophloeus]

Ceraleptus lividus [squalidus]

Syromastes marginatus

Dasycoris hirticornis [Coreus]

Coreus scapha [Enoplops]

Gonocerus venator

Atractus Dalmanii [Spathocera Dalmani]

Verlusia rhombea

Alydus calcaratus

Chorosoma Schillingi

Therapha hyoscyami [Hyoscyami]

Myrmus miriformis Corizus maculatus

Corizus parumpunctatus

Corizus capitatus

Corizus abutilon [-]

Corizus crassicornis

Pyrrhocoris apterus

STENOCEPHALIDAE

Dicranocephalus agilis (Scopoli) Stenocephalus agilis
Dicranocephalus albipes (Fabricius) Stenocephalus neglectus

Dicranocephalus medius (Mulsant & Rey)

LYGAEIDAE

Acompus pallipes (Herrich-Schaeffer)

Acompus rufipes (Wolff) Acompus rufipes
Aphanus rolandri (Linnaeus) Calyptonotus Rolandri

Arocatus longiceps Stål

Beosus maritimus (Scopoli) Dieuches luscus Chilacis typhae (Perris) Chilacis Typhae

Cymus aurescens Distant

Cymus claviculus (Fallén)

Cymus glandicolor Hahn

Cymus melanocephalus Fieber

Cymus melanocephalus [-]

Drymus brunneus (R.F. Sahlberg)

Drymus brunneus

Drymus latus Douglas & Scott -

Drymus pilicornis (Mulsant & Rey) Drymus pilicornis [Rhyparochromus]

Drymus pilipes Fieber Drymus pilipes

- Drymus pilipes

Drymus ryeii Douglas & Scott Drymus sylvaticus var. Ryei [Ryeii]

Drymus sylvaticus (Fabricius) Drymus sylvaticus

Emblethis denticollis Horváth -

Emblethis griseus (Wolff)
Eremocoris abietis (Linnaeus)

Emblethis verbasci [-]

Eremocoris fenestratus (Herrich-Schaeffer) Eremocoris podagricus [erraticus]

Eremocoris plebejus (Fallén)Eremocoris plebeius [-]Eremocoris podagricus (Fabricius)-Gastrodes abietum BergrothGastrodes abietis [Abietis]Gastrodes grossipes (De Geer)Gastrodes ferrugineus

Graptopeltus lynceus (Fabricius)

Henestaris halophilus (Burmeister)

Gashroues ferragineus

Calyptonotus lynceus [-]

Henestaris laticeps (Curtis)
Heterogaster artemisiae Schilling
Heterogaster urticae (Fabricius)

Henestaris laticeps
Phygadicus artemisiae [Artemisiae]
Phygadicus urticae [Urticae]

Ischnodemus sabuleti (Fallén)

Ischnodemus sabuleti

Kleidocerys ericae (Horváth)

Kleidocerys resedae (Panzer)

Ischnorhynchus geminatus [Resedae]

Ischnorhynchus Didymus [-]

Lamproplax picea (Flor)

Lamproplax piceas [-]

Lamproplax piceas [-]

Lasiosomus enervis (Herrich-Schaeffer)

Lasiosomus enervis [-]

Lygaeus equestris (Linnaeus) Lygaeus simulans Deckert Macrodema microptera (Curtis) Macrodema microptera [Hypnophilus micropterus]
Macroplax preyssleri (Fieber) -

Megalonotus antennatus (Schilling)Rhyparochromus antennatusMegalonotus chiragra (Fabricius)Rhyparochromus chiragraMegalonotus dilatatus (Herrich-Schaeffer)Rhyparochromus dilatatus

Megalonotus emarginatus (Rey) - Knyparochromus all

Megalonotus praetextatus (Herrich-Schaeffer)

Megalonotus sabulicola (Thomson)

Rhyparochromus praetextatus

Rhyparochromus sabulicola [-]

Metopoplax ditomoides (A. Costa) Metopoplax fuscinervis Stål -

Notochilus limbatus Fieber Notochilus limbatus [-]

Nysius cymoides (Spinola) Nysius ericae (Schilling) Nysius graminicola (Kolenati) -

Nysius helveticus (Herrich-Schaeffer) Nysius brunneus [-]

LYGAEIDAE (CONTINUED)

Nysius huttoni F.B. White Nysius senecionis (Schilling)

Nysius thymi (Wolff)

Orsillus depressus (Mulsant & Rey)

Ortholomus punctipennis (Herrich-Schaeffer)

Pachybrachius fracticollis (Schilling)

Pachybrachius luridus Hahn

Peritrechus angusticollis (R.F. Sahlberg)

Peritrechus convivus (Stål)
Peritrechus geniculatus (Hahn)
Peritrechus gracilicornis Puton
Peritrechus lundii (Gmelin)
Peritrechus nubilus (Fallén)
Pionosomus varius (Wolff)
Plinthisus brevipennis (Latreille)

Pterotmetus staphyliniformis (Schilling)

Raglius alboacuminatus (Goeze)
Rhyparochromus pini (Linnaeus)
Rhyparochromus vulgaris (Schilling)
Scolopostethus affinis (Schilling)
Scolopostethus decoratus (Hahn)
Scolopostethus grandis Horváth
Scolopostethus pictus (Schilling)
Scolopostethus puberulus Horváth
Scolopostethus thomsoni Reuter

Scolopostethus thomsoni Reuter Sphragisticus nebulosus (Fallén) Stygnocoris fuligineus (Geoffroy) Stygnocoris rusticus (Fallén)

Stygnocoris sabulosus (Schilling)
Taphropeltus contractus (Herrich-Schaeffer)

Taphropeltus hamulatus (Thomson)

Trapezonotus arenarius (Linnaeus)

Trapezonotus desertus Seidenstücker Trapezonotus dispar Stål Trapezonotus ullrichi (Fieber) Tropistethus holosericus (Scholtz)

 $Xanthochilus\ quadratus\ (Fabricius)$ 

BERYTIDAE

Berytinus clavipes (Fabricius)

Berytinus crassipes (Herrich-Schaeffer)

Berytinus hirticornis (Brullé)

Berytinus minor (Herrich-Schaeffer)

Berytinus montivagus (Meyer-Dür) Berytinus signoreti (Fieber) Gampsocoris punctipes (Germar)

Metatropis rufescens (Herrich-Schaeffer)

Neides tipularius (Linnaeus)

**PIESMATIDAE** 

Parapiesma quadratum (Fieber) Piesma maculatum (Laporte) -

Nysius thymi [Thymi]

-

Plociomerus fracticollis Plociomerus luridus [-]

-

*Trapezonotus distinguendus [distinctus]* 

-

Peritrechus luniger Peritrechus nubilus Pionosomus varius Plinthisus brevipennis + Plinthisus bidentulus

-

Calyptonotus pedestris Calyptonotus pini [Pini]

Scolopostethus adjunctus

Scolopostethus ericetorum [affinis]

-

Scolopostethus pictus

-

Scolopostethus affinis [-]

\_

Stygnocoris arenarius Stygnocoris rusticus Stygnocoris sabulosus Scolopostethus contractus

-

Trapezonotus agrestis

\_

Trapezonotus dispar [-]

-

Tropistethus holosericeus Calyptonotus quadratus [-]

Berytus clavipes Berytus crassipes

-

Berytus minor

+ Berytinus cognatus [+ Berytus commutatus] Berytus montivagus

Berytus pygmaeus [Signoreti] Metacanthus punctipes Metatropis rufescens

Neides tipularius [Tipularius] + Neides parallelus [depressus]

Piesma quadrata [Zosmerus quadratus] Piesma capitata [Zosmerus capitatus]

+ Piesma Laportei [Zosmerus]

**TINGIDAE** 

Acalypta brunnea [Orthostira concinna]

Acalypta carinata (Panzer)

Acalypta cervina [Orthostira]

Acalypta nigrina (Fallén) Acalypta nigrina [-]

+ Acalypta macrophthalma [-]
Acalypta parvula (Fallén)
Acalypta parvula [Orthostira obscura]

Acalypta platycheila (Fieber) -

Agramma laetum (Fallén)

Campylosteira verna (Fallén)

Serenthia laeta [Agramma]

Campylosteira brachycera
[+Campylostira verna]

Catoplatus fabricii (Stål)

Corythucha ciliata (Say)

[+Campytosura verna]

Monanthia costata

-

Derephysia foliacea (Fallén) Derephysia foliacea

Dictyla convergens (Herrich-Schaeffer)Monanthia humuli [Humuli]Dictyonota fuliginosa A. CostaDictyonota fuliginosa [-]Dictyonota strichnocera FieberDictyonota strichnoceraKalama tricornis (Schrank)Dictyonota crassicornis

Lasiacantha capucina (German) -

Oncochila simplex (Herrich-Schaeffer) Monanthia simplex

Physatocheila confinis Horváth -

Physatocheila dumetorum (Herrich-Schaeffer) Monanthia dumetorum

Physatocheila harwoodi China - Monanthia quadrimaculata
Physatocheila smreczynskii China Monanthia quadrimaculata

Stephanitis rhododrendri Horváth -Stephanitis takeyai Drake & Maa -

Tingis ampliata (Herrich-Schaeffer) Monanthia ampliata

Tingis angustata (Herrich-Schaeffer)

Tingis cardui (Linnaeus) Monanthia cardui

Tingis reticulata Herrich-Schaeffer Monanthia reticulata

REDUVIIDAE

Coranus aethiops Jakovlev Coranus subapterus (De Geer) - Coranus subapterus

Coranus suoapterus (De Geel) Coranus suoapte
Coranus woodroffei P.V. Putshkov Empicoris baerensprungi (Dohrn) -

Empicoris culiciformis (De Geer) Ploiaria culiciformis [erratica]

Empicoris vagabundus (Linnaeus) Ploiaria vagabunda Oncocephalus pilicornis Reuter -

Pygolampis bidentata (Goeze) Pygolampis bidentata [bifurcata]

Reduvius personatus (Linnaeus) Reduvius personatus

Nabidae

Himacerus apterus (Fabricius)

Nabis brevipennis

Himacerus boops (Schiødte)

Himacerus major (A. Costa)
Nabis major [flavomarginatus]
Himacerus mirmicoides (O. Costa)
Nabis lativentris [apterus]

Nabis brevis Scholtz - Nabis ericetorum Scholtz Nabis ericetorum [-]

Nabis ferus (Linnaeus) Nabis ferus

Nabis flavomarginatus Scholtz
Nabis limbatus Dahlbom
Nabis limbatus
Nabis limbatus

Nabis lineatus Dahlbom
Nabis Poweri [-]
Nabis pseudoferus Remane

Nabis rugosus (Linnaeus)

Nabis rugosus [dorsalis]

Prostemma guttula (Fabricius) Prostemma guttula [Metastemma]

ANTHOCORIDAE

Acompocoris alpinus Reuter Acompocoris alpinus [-]

Acompocoris pygmaeus (Fallén) Acompocoris pygmaeus [Temnostethus lucorum]

Anthocoris amplicollis Horváth

ANTHOCORIDAE (CONTINUED)

Anthocoris butleri Le Quesne Anthocoris confusus Reuter Anthocoris gallarumulmi (De Geer) Anthocoris limbatus Fieber Anthocoris minki Dohrn -

Anthocoris nemoralis (Fabricius)

Anthocoris nemorum (Linnaeus)

Anthocoris nemorum

Anthocoris pilosus (Jakovlev)

Anthocoris sarothamni Douglas & Scott Anthocoris nemoralis var. sarothamni [Anthocoris Sarothamni]

Anthocoris simulans Reuter Anthocoris visci Douglas

Brachysteles parvicornis (A. Costa)

Brachysteles pilicornis

Buchananiella continua (F.B. White)

Cardiastethus fasciiventris (Garbiglietti) Cardiastethus testaceus

Dufouriellus ater (Dufour) Xylocoris ater

Elatophilus nigricornis (Zetterstedt) Temnostethus nigricornis [-]
Lyctocoris campestris (Fabricius) Lyctocoris campestris [domesticus]

Orius laevigatus (Fieber) Orius laticollis (Reuter) Orius majusculus (Reuter) -

Orius niger (Wolff)
Triphleps niger
[+Triphleps obscurus]
Orius vicinus (Ribaut)
Triphleps minutus

Temnostethus gracilis Horváth -

Temnostethus pusillus (Herrich-Schaeffer)

Temnostethus pusillus

Temnostethus tibialis Reuter

Tetraphleps bicuspis (Herrich-Schaeffer) Tetraphleps vittata [vittatus]

Xylocoridea brevipennis Reuter -

Xylocoris cursitans (Fallén)Piezostethus cursitans [rufipennis]Xylocoris formicetorum (Boheman)Piezostethus formicetorum [-]Xylocoris galactinus (Fieber)Piezostethus galactinus

CIMICIDAE

Cimex columbarius Jenyns Acanthia columbaria [Columbaria]

Cimex lectularius Linnaeus Acanthia lectularia

Cimex pipistrelli Jenyns Acanthia pipistrelli [Pipistrelli]
Oeciacus hirundinis (Lamarck) Acanthia hirundinis [Hirundinis]

MICROPHYSIDAE

Loricula coleoptrata (Fallén) Myrmedobia coleoptrata

Loricula distinguenda (Reuter) -

Loricula elegantula (Baerensprung) Microphysa elegantula [Zygonotus elegantulus]

Loricula exilis (Fallén) Myrmedobia tenella [-]

Loricula inconspicua (Douglas & Scott) Myrmedobia inconspicua [-]

Loricula pselaphiformis Curtis Microphysa pselaphiformis [Zygonotus]

Loricula ruficeps (Reuter)

MIRIDAE

Acetropis gimmerthalii (Flor)

Acetropis Gimmerthalii [seticulosa]

Adelphocoris lineolatus (Goeze) Calocoris chenopodii [Deraeocoris Chenopodii]

Adelphocoris seticornis (Fabricius)Calocoris seticornis [Deraeocoris]Adelphocoris ticinensis (Meyer-Dür)Calocoris ticinensis [Deraeocoris]

Agnocoris reclairei (Wagner) Alloeotomus gothicus (Fallén) Amblytylus brevicollis Fieber Amblytylus delicatus (Perris) -

Amblytylus nasutus (Kirschbaum) Amblytylus affinis

Apolygus limbatus (Fallén)

Apolygus lucorum (Meyer-Dür) Lygus lucorum

MIRIDAE (CONTINUED) Apolygus spinolae (Meyer-Dür) Lygus Spinolae Asciodema obsoleta (Fieber) Orthotylus Saundersi [Tinicephalus obsoletus] Atractotomus magnicornis (Fallén) Atractotomus mali (Meyer-Dür) Atractotomus mali [magnicornis] Atractotomus parvulus Reuter Blepharidopterus angulatus (Fallén) Aetorhinus angulatus Blepharidopterus diaphanus (Kirschbaum) Orthotylus diaphanus [-] Bothynotus pilosus (Boheman) Bothynotus pilosus [-] Brachyarthrum limitatum Fieber Brachynotocoris puncticornis Reuter Bryocoris pteridis Bryocoris pteridis (Fallén) Calocoris alpestris (Meyer-Dür) Calocoris alpestris [-] Calocoris roseomaculatus (De Geer) Calocoris roseomaculatus [Deraeocoris ferrugatus] Camptozygum aequale (Villers) Hadrodema pinastri [-] Campylomma annulicorne (Signoret) Campylomma verbasci (Meyer-Dür) Campyloneura virgula (Herrich-Schaeffer) Campyloneura virgula Capsodes flavomarginatus (Donovan) Lopus mat [miles] Capsodes gothicus (Linnaeus) Lopus gothicus Capsodes sulcatus (Fieber) Lopus sulcatus [-] Capsus ater (Linnaeus) Rhopalotomus ater Capsus wagneri (Remane) Charagochilus gyllenhalii (Fallén) Poeciloscytus Gyllenhalii [Charagochilus] Charagochilus weberi Wagner Chlamydatus evanescens (Boheman) Chlamydatus pulicarius (Fallén) Chlamydatus pullus (Reuter) Plagiognathus pulicarius [Agalliastes] Chlamydatus saltitans (Fallén) Plagiognathus saltitans [Agalliastes] Chlamydatus wilkinsoni (Douglas & Scott) Plagiognathus Wilkinsoni [-] Closterotomus fulvomaculatus (De Geer) Calocoris fulvomaculatus [Deraeocoris] Closterotomus norwegicus (Gmelin) Calocoris bipunctatus [Deraeocoris] Closterotomus trivialis (A. Costa) Compsidolon salicellum (Herrich-Schaeffer) Psallus salicellus Conostethus brevis Reuter Conostethus salinus [-] Conostethus griseus Douglas & Scott Conostethus roseus (Fallén) Conostethus roseus Conostethus venustus (Fieber) Cyllecoris histrionius (Linnaeus) Cyllocoris histrionicus Cyrtorhinus caricis (Fallén) Chlamydatus caricis [Sphyracephalus elegantulus] Deraeocoris flavilinea (A. Costa) Camptobrochis lutescens [punctulatus] Deraeocoris lutescens (Schilling) Deraeocoris olivaceus (Fabricius) Deraeocoris ruber (Linnaeus) Capsus laniarius [capillaris] Deraeocoris scutellaris (Fabricius) Capsus scutellaris Dichrooscytus gustavi Josifov Dichrooscytus rufipennis (Fallén) Dichrooscytus rufipennis Dicyphus annulatus (Wolff) Dicyphus annulatus [Idolocoris] Dicyphus constrictus (Boheman) Dicyphus epilobii Reuter Dicyphus pallidus [Idolocoris] Dicyphus errans (Wolff) Dicyphus errans [Idolocoris] Dicyphus escalerae Lindberg Dicyphus globulifer (Fallén) Dicyphus globulifer [Idolocoris] Dicyphus pallicornis (Fieber) Dicyphus pallicornis [Idolocoris] Dicyphus pallidus (Herrich-Schaeffer) Dicyphus stachydis J. Sahlberg Dryophilocoris flavoquadrimaculatus (De Geer) Globiceps flavonotatus Europiella artemisiae (Becker) Plagiognathus albipennis [-]

Europiella decolor (Uhler) Fieberocapsus flaveolus (Reuter)

MIRIDAE (CONTINUED) Globiceps flavomaculatus (Fabricius) Globiceps flavomaculatus [selectus] Globiceps fulvicollis Jakovlev Globiceps fulvipes [flavomaculatus] Globiceps juniperi Reuter Grypocoris stysi (Wagner) Calocoris sexguttatus [Deraeocoris] Hadrodemus m-flavum (Goeze) Calocoris marginellus [Deraeocoris] Hallodapus montandoni Reuter Hallodapus rufescens (Burmeister) Eroticoris rufescens Halticus apterus (Linnaeus) Halticus apterus [Halticocoris pallicornis] Halticus luteicollis (Panzer) Halticus luteicollis [Halticocoris] Halticus macrocephalus Fieber Halticus saltator (Geoffroy) Harpocera thoracica (Fallén) Harpocera thoracica Heterocordylus genistae (Scopoli) Heterocordylus unicolor [+ Heterocordvlus leptocerus] Heterocordylus tibialis (Hahn) Heterocordylus tibialis Heterotoma planicornis (Pallas) Heterotoma merioptera Hoplomachus thunbergii (Fallén) Hoplomachus Thunbergi [Thunbergii] Hypseloecus visci (Puton) Leptopterna dolabrata (Linnaeus) Leptopterna dolobrata [Lopomorphus dolobratus] Leptopterna ferrugata [Lopomorphus ferrugatus] Leptopterna ferrugata (Fallén) [+Lopomorphus carinatus] Liocoris 3-pustulatus [tripustulatus] Liocoris tripustulatus (Fabricius) Lopus decolor (Fallén) Oncotylus decolor Lygocoris pabulinus (Linnaeus) Lygus pabulinus Lygocoris rugicollis (Fallén) Plesiocoris rugicollis [-] Lygus maritimus Wagner Lygus pratensis (Linnaeus) Lygus pratensis [+Lygus campestris] Lygus punctatus (Zetterstedt) Lygus rugulipennis Poppius Lygus wagneri Remane *Macrolophus pygmaeus* (Rambur) Macrolophus nubilus Macrolophus rubi Woodroffe Macrotylus horvathi (Reuter) Macrotylus paykullii (Fallén) Macrocoleus Paykullii [paykullii] Macrotylus solitarius (Meyer-Dür) *Macrocoleus solitarius* [-] Malacocoris chlorizans (Panzer) Malacocoris chlorizans Chlamydatus ambulans [Sphyracephalus ambulans] Mecomma ambulans (Fallén) Globiceps dispar [-] Mecomma dispar (Boheman) + Globiceps ater [-] Megacoelum beckeri (Fieber) Megacoelum infusum (Herrich-Schaeffer) Calocoris infusus [Deraeocoris] *Megaloceroea recticornis* (Geoffroy) Megaloceraea longicornis [Miris] Megalocoleus molliculus (Fallén) Macrocoleus molliculus Megalocoleus tanaceti (Fallén) Macrocoleus tanaceti [Oncotylus pilosus] Miridius quadrivirgatus (A. Costa) Miridius quadrivirgatus Miris striatus (Linnaeus) Calocoris striatus [Deraeocoris] Monalocoris filicis (Linnaeus) Monalocoris filicis Monosynamma bohemanni (Fallén) Plagiognathus Bohemanni [Neocoris Bohemanni] + Plagiognathus nigritulus [Neocoris Scotti] Monosynamma maritimum (Wagner) Monosynamma sabulicola (Wagner) Myrmecoris gracilis (R.F. Sahlberg) Neolygus contaminatus (Fallén) Lygus contaminatus [Lygus sulcifrons] Neolygus populi (Leston) Neolygus viridis (Fallén)

Notostira elongata (Geoffroy) Notostira erratica (Linnaeus)

Oncotylus viridiflavus (Goeze)

Lygus viridis [contaminatus]

Megaloceraea erratica [Miris erraticus]

Anotherops sutulosus [Anoterops]

MIRIDAE (CONTINUED) Orthocephalus coriaceus (Fabricius) Orthocephalus coriaceus [mutabilis] Orthocephalus saltator (Hahn) Orthocephalus saltator Orthonotus rufifrons (Fallén) Byrsoptera rufifrons [caricis] Orthops basalis (A. Costa) Orthops campestris (Linnaeus) Lygus pastinacae [Orthops] Orthops kalmii (Linnaeus) Lygus Kalmii [Orthops] Orthotylus adenocarpi (Perris) Orthotylus Douglasi [-] Orthotylus bilineatus (Fallén) Orthotylus bilineatus [-] Orthotylus caprai Wagner Orthotylus concolor (Kirschbaum) Orthotylus concolor [Litosoma] Orthotylus ericetorum (Fallén) Orthotylus ericetorum [Litosoma] Orthotylus flavinervis (Kirschbaum) *Orthotylus flavinervis* [*Litosoma*] Orthotylus flavosparsus (C.R. Sahlberg) Orthotylus flavosparsus [Litosoma] [+Litosoma prasinus] Orthotylus fuscescens (Kirschbaum) Orthotylus junipericola Linnavuori Orthotylus marginalis Reuter Orthotylus nassatus [Litosoma] Orthotylus moncreaffi (Douglas & Scott) Orthotylus rubidus var. Moncreaffi [-] Orthotylus striicornis [Litosoma striicornis] Orthotylus nassatus (Fabricius) Orthotylus ochrotrichus Fieber [Litosoma ochrotrichus] Orthotylus prasinus (Fallén) Orthotylus prasinus [Litosoma viridinervis] Orthotylus rubidus (Puton) *Orthotylus rubidus* [-] Orthotylus tenellus (Fallén) Orthotylus tenellus [Litosoma angustus] Orthotylus virens (Fallén) Orthotylus virescens (Douglas & Scott) [Litosoma virescens] Orthotylus viridinervis (Kirschbaum) Pachytomella parallela (Meyer-Dür) Pantilius tunicatus (Fabricius) Pantilius tunicatus Parapsallus vitellinus (Scholtz) Phoenicocoris obscurellus (Fallén) Psallus obscurellus [Atractotomus Pini] Phylus coryli (Linnaeus) Phylus coryli + Phylus avellanae Phylus melanocephalus (Linnaeus) Phylus melanocephalus + Phylus palliceps Phytocoris dimidiatus Kirschbaum Phytocoris populi [dubius] Phytocoris insignis Reuter Phytocoris longipennis Flor Phytocoris longipennis [dimidiatus] Phytocoris pini Kirschbaum Phytocoris pini [-] Phytocoris populi (Linnaeus) [Phytocoris distinctus] Phytocoris reuteri Saunders Phytocoris Reuteri [crassipes] Phytocoris tiliae (Fabricius) Phytocoris tiliae Phytocoris ulmi (Linnaeus) Phytocoris ulmi [divergens] Phytocoris varipes Boheman Phytocoris varipes [Ulmi] Pilophorus cinnamopterus (Kirschbaum) Pilophorus bifasciatus [Camaronotus cinnamopterus] Pilophorus clavatus (Linnaeus) Pilophorus clavatus [Camaronotus] Pilophorus confusus (Kirschbaum) Pilophorus perplexus Douglas & Scott Pinalitus atomarius (Meyer-Dür) Pinalitus cervinus (Herrich-Schaeffer) Lygus cervinus [Orthops] Pinalitus rubricatus (Fallén) Lygus rubricatus Pinalitus viscicola (Puton) Pithanus maerkelii (Herrich-Schaeffer) Pithanus Märkeli Placochilus seladonicus (Fallén) Plagiognathus arbustorum (Fabricius) Plagiognathus arbustorum Plagiognathus chrysanthemi (Wolff) Plagiognathus viridulus Platycranus bicolor (Douglas & Scott) *Orthotylus chloropterus* [*Litosoma chloropterus*]

Plesiodema pinetellum [-]

Poeciloscytus nigritus [Systratiotus]

Plesiodema pinetella (Zetterstedt)

Polymerus nigrita (Fallén)

Polymerus palustris (Reuter)

MIRIDAE (CONTINUED) Polymerus unifasciatus (Fabricius) Poeciloscytus unifasciatus Polymerus vulneratus (Panzer) Psallodema fieberi (Fieber) Psallus Fieberi Psallus albicinctus (Kirschbaum) Psallus ambiguus (Fallén) Psallus ambiguus [Apocremnus obscurus] Psallus assimilis Stichel Psallus simillimus [Apocremnus] Psallus betuleti (Fallén) Psallus betuleti [Apocremnus ambiguus] Psallus confusus Rieger Psallus diminutus [-] Psallus falleni Reuter Psallus roseus [salicis] Psallus Kirschbaumi [roseus] Psallus flavellus Stichel Psallus haematodes (Gmelin) Psallus sanguineus [+Psallus Querceti] [+Psallus dilutus] Psallus lepidus Fieber Psallus lepidus Psallus luridus Reuter Psallus mollis (Mulsant & Rey) Psallus montanus Josifov Psallus perrisi (Mulsant & Rey) Psallus pseudoplatani Reichling Psallus quercus (Kirschbaum) Psallus quercus [Apocremnus Quercus] Psallus salicis (Kirschbaum) Psallus alnicola [Alni] Psallus variabilis (Fallén) Psallus variabilis [Apocremnus] Psallus varians (Herrich-Schaeffer) Psallus varians [+Psallus distinctus] Psallus wagneri Ossiannilsson Pseudoloxops coccineus (Meyer-Dür) Loxops coccineus [-] Reuteria marqueti Puton Rhabdomiris striatellus (Fabricius) Calocoris striatellus [Deraeocoris] [+Deraeocoris fornicatus] Salicarus roseri (Herrich-Schaeffer) Plagiognathus Roseri [-] Stenodema calcarata (Fallén) Miris calcaratus Stenodema holsata (Fabricius) Miris holsatus Stenodema laevigata (Linnaeus) Miris laevigatus Stenodema trispinosa Reuter Stenotus binotatus (Fabricius) *Oncognathus binotatus* [*Deraeocoris*] Sthenarus rotermundi (Scholtz) Psallus Rotermundi [Sthenarus] Strongylocoris leucocephalus (Linnaeus) Stiphrosoma leucocephalum [leucocephala] Stiphrosoma luridum [-] Strongylocoris luridus (Fallén) Systellonotus triguttatus (Linnaeus) Systellonotus triguttatus Teratocoris antennatus (Boheman) *Teratocoris antennatus* [-] Teratocoris caricis Kirkaldy Teratocoris saundersi Douglas & Scott Teratocoris Saundersi [-] Teratocoris viridis Douglas & Scott *Teratocoris viridis* [-] Tinicephalus hortulanus (Meyer-Dür) Macrocoleus hortulanus [Oncotylus tanaceti] Trigonotylus caelestialium (Kirkaldy) Trigonotylus psammaecolor Reuter Trigonotylus ruficornis (Geoffroy) Megaloceraea ruficornis [Miris] Tropidosteptes pacificus (Van Duzee) Tupiocoris rhododendri (Dolling) Tuponia brevirostris Reuter Tuponia mixticolor (A. Costa) Tytthus pubescens (Knight) *Tytthus pygmaeus* (Zetterstedt) Chlamydatus insignis [-] Zygimus nigriceps (Fallén)

#### CERATOCOMBIDAE

Ceratocombus coleoptratus (Zetterstedt) Ceratocombus coleoptratus [muscorum]

[+Salda pulchella]

DIPSOCORIDAE

Cryptostemma alienum Herrich-Schaeffer Cryptostemma alienum [Dipsocoris]

Pachycoleus waltli Fieber

**S**ALDIDAE

Chartoscirta cincta (Herrich-Schaeffer) Salda cincta

Chartoscirta cocksii (Curtis)

Chartoscirta elegantula (Fallén)

Chiloxanthus pilosus (Fallén)

Halosalda lateralis (Fallén)

Salda Cocksii [elegantula]

Salda elegantula [-]

Salda pilosa

Salda lateralis

Macrosaldula scotica (Curtis)Salda scotica [riparia]Micracanthia marginalis (Fallén)Salda marginalisSalda littoralis (Linnaeus)Salda littoralisSalda morio ZetterstedtSalda morio [-]

Salda muelleri (Gmelin)

Saldula arenicola (Scholtz)Salda arenicola [-]Saldula c-album (Fieber)Salda C-album [stellata]

Saldula connemarae Walton Saldula fucicola (J. Sahlberg) Saldula melanoscela (Fieber) -

Saldula opacula (Zetterstedt)Salda opacula [-]Saldula orthochila (Fieber)Salda orthochilaSaldula pallipes (Fabricius)Salda pallipes

Saldula palustris (Douglas)-Saldula pilosella (Thomson)Salda pilosella [-]Saldula saltatoria (Linnaeus)Salda saltatoria

Saldula setulosa (Puton)

Teloleuca pellucens (Fabricius) Salda conspicua [-]

AEPOPHILIDAE

Aepophilus bonnairei Signoret -

MESOVELIIDAE

Mesovelia furcata Mulsant & Rey Mesovelia furcata [-]

HEBRIDAE

Hebrus pusillus (Fallén) Hebrus pusillus

Hebrus ruficeps Thomson

HYDROMETRIDAE

Hydrometra gracilenta Horváth -

Hydrometra stagnorum (Linnaeus) Hydrometra stagnorum [Limnobates]

VELIIDAE

Microvelia buenoi Drake Microvelia pygmaea (Dufour) - Microvelia pygmaea

Microvetta pygmaea (Burott) - Microvetta pygmaea Microvetta pygmaea (Burmeister) -

Velia caprai Tamanini Velia currens

Velia saulii Tamanini -

GERRIDAE

Aquarius najas (De Geer)Gerris Najas [Hydrometra najas]Aquarius paludum (Fabricius)Gerris paludum [Hydrometra]Gerris argentatus SchummelGerris argentata [Hydrometra]

Gerris costae (Herrich-Schaeffer) Gerris costae [-]

Gerris gibbifer Schummel Gerris gibbifera [Hydrometra]
Gerris lacustris (Linnaeus) Gerris lacustris [Hydrometra]

Gerris lateralis Schummel Gerris aspera [-]
Gerris odontogaster (Zetterstedt) Gerris odontogaster [-]

GERRIDAE (CONTINUED)

Gerris thoracicus Schummel Gerris thoracica [Hydrometra] *Limnoporus rufoscutellatus* (Latreille) Gerris rufoscutellata [-]

**NEPIDAE** 

Nepa cinerea Linnaeus Nepa cinerea Ranatra linearis (Linnaeus) Ranatra linearis

NAUCORIDAE

Ilyocoris cimicoides (Linnaeus) Naucoris cimicoides

Naucoris maculatus Fabricius

APHELOCHEIRIDAE

Aphelocheirus aestivalis (Fabricius) Aphelocheirus aestivalis

NOTONECTIDAE

Notonecta glauca Linnaeus Notonecta glauca

Notonecta maculata Fabricius Notonecta glauca var. maculata [Notonecta maculata]

Notonecta obliqua Thunberg [Notonecta glauca var. furcata]

Notonecta viridis Delcourt

**PLEIDAE** 

Plea minutissima Leach Plea minutissima

**CORIXIDAE** 

Arctocorisa carinata (C.R. Sahlberg) Corixa carinata [-] Arctocorisa germari (Fieber) Corixa variegata [-] Callicorixa praeusta (Fieber) Corixa praeusta [-] +Corixa sodalis [-]

+Corixa Boldii [-] Callicorixa wollastoni (Douglas & Scott) Corixa Wollastoni +Corixa cognata [-]

Corixa affinis Leach Corixa affinis Corixa dentipes Thomson Corixa iberica Jansson

Corixa Panzeri Corixa panzeri Fieber Corixa punctata (Illiger) Corixa Geoffroyi Cymatia bonsdorffii (C.R. Sahlberg) Cymatia Bonsdorffii Cymatia coleoptrata (Fabricius) Cymatia coleoptrata

Cymatia rogenhoferi (Fieber)

Glaenocorisa cavifrons (Thomson) Corixa cavifrons [-]

Glaenocorisa propinqua (Fieber) Hesperocorixa castanea (Thomson)

Hesperocorixa linnaei (Fieber) Corixa Linnaei [Linnéi] Hesperocorixa moesta (Fieber) Corixa moesta Hesperocorixa sahlbergi (Fieber)

Micronecta griseola Horváth

Micronecta minutissima (Linnaeus) Sigara minutissima

Micronecta poweri (Douglas & Scott) Micronecta scholtzi (Fieber) Sigara Scholtzii [-]

Paracorixa concinna (Fieber) Corixa concinna Sigara distincta (Fieber) Corixa distincta + Corixa vernicosa [-]

[+ Corixa Douglasi]

Corixa Sahlbergi

Sigara dorsalis (Leach)

Sigara falleni (Fieber) Corixa Fallenii [Falléni]

Sigara fallenoidea (Hungerford)

Sigara fossarum (Leach) Corixa fossarum

Sigara iactans Jansson

Sigara lateralis (Leach) Corixa hieroglyphica

CORIXIDAE (CONTINUED)

Sigara limitata (Fieber) Corixa limitata [-]

Sigara longipalis (J. Sahlberg)

Sigara nigrolineata (Fieber) Corixa Fabricii [nigrolineata]

Sigara scotti (Douglas & Scott)Corixa Scotti [-]Sigara selecta (Fieber)Corixa StåliSigara semistriata (Fieber)Corixa semistriataSigara stagnalis (Leach)Corixa lugubrisSigara striata (Linnaeus)Corixa striataSigara venusta (Douglas & Scott)Corixa venusta [-]

N.B. The name *Rhyparochromus dimidiatus* (Lygaeidae) of Douglas & Scott (1865) is not included in the above list as I have not been able to find the modern name to which it corresponds.

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# AN ANNOTATED CHECKLIST OF THE AMBIGUOUS SPECIES NAMES OF HEMIPTERA-HETEROPTERA FROM DOUGLAS & SCOTT (1865) TO SAUNDERS (1892)

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This article is a prequel to Ryan (2015, 2016 & 2018), which listed the ambiguous species names of the British Hemiptera-Heteroptera following Saunders (1892a). The present article lists the additional ambiguous species names that arose in the period prior to the publication of this work, and after Douglas & Scott (1865), and thereby assists in the interpretation of records published at this time. As stated previously, the significance of ambiguous species names is that once it is discovered that two distinct species have been recorded under the same name, all previous records must be discounted, unless they are supported by authenticated specimens.

The first decade of this period was a time of considerable change in the British list presented in Douglas & Scott (1865). Many additions and corrections to this work were published, not least by the authors themselves, and some form of stability did not exist until the Synopsis of Saunders (1875a, 1875b & 1876). Many of the ambiguities described below therefore relate only to the decade immediately following Douglas & Scott (1865). These are marked with '\*'.

#### PENTATOMIDAE

#### Pentatoma baccarum

The *Pentatoma baccarum* of the Synopsis did not refer to the *Dolycoris baccarum* (Linnaeus) of today, but to *Carpocoris purpureipennis* (De Geer) or *Carpocoris mediterraneus* Tamanini. However, since the latter are rarely encountered, the degree of confusion is likely to be very small. Douglas & Scott (1865) did not include the ambiguity.

## Piezodorus purpureipennis\*

The use of this name in Douglas & Scott (1865) does not refer to the *Carpocoris purpureipennis* (De Geer) of today, but to *Piezodorus lituratus* (Fabricius), a common species. The real *C. purpureipennis* goes by the name *Pentatoma nigricorne*, and is a rare species. This confusion does not occur in the Synopsis.

## Strachia ornata\*

The use of this name in Douglas & Scott (1865) does not refer to the *Eurydema ornata* (Linnaeus) of today, but to *Eurydema dominulus* (Scopoli), a common species. The real *E. ornata* is not described, and today has a very restricted distribution. This confusion does not occur in the Synopsis.

#### LYGAEIDAE

## Cymus species\*

The common *Cymus melanocephalus* Fieber was first reported as British by Saunders (1874). Prior records of this bug may have been recorded as *Cymus claviculus* (Fallén) or *Cymus glandicolor* Hahn. This confusion does not occur in the Synopsis.

## Henestraris laticeps

Henestaris halophilus (Burmeister) was not separated from Henestaris laticeps (Curtis) until Saunders (1891), and the former was found in collections standing over the name of the latter. However, the former is much less frequently encountered than the latter, and the degree of confusion is likely to be small.

#### Ischnorhynchus Resedae\*

The use of this name in Douglas & Scott (1865) does not refer to the *Kleidocerys resedae* (Panzer) of today, but to *Kleidocerys ericae* (Horváth), both common species. The real *K. resedae* was not described. This confusion was promptly corrected in Douglas & Scott (1866), so the degree of confusion is likely to be small.

#### Peritrechus nubilus

Peritrechus geniculatus (Hahn) was not recognised as British until Douglas (1875 & 1879), and had previously been confused with *Peritrechus nubilus* (Fallén). Since the former species is much more frequently encountered than the latter, many earlier records for the above name presumably refer to the former species.

## Plociomerus fracticollis\*

Pachybrachius luridus Hahn was first reported as British by Saunders (1870), as *Plociomerus luridus*. The bug is much less frequently encountered than *Pachybrachius fracticollis* (Schilling) (*Plociomerus fracticollis* of Douglas & Scott (1865)), so the degree of confusion is likely to be small.

### Scolopostethus species

The three common members of this genus, *Scolopostethus affinis* (Schilling), *Scolopostethus decoratus* (Hahn) and *Scolopostethus thomsoni* Reuter, were confused prior to Horváth (1891). *Scolopostethus grandis* Horváth was first mentioned as British at this time, and *Scolopostethus puberulus* Horváth in Saunders (1892a). Only the distinct *Scolopostethus pictus* (Schilling) is likely to have escaped confusion previously.

#### Nabidae

## Nabis species\*

The Nabis apterus and Nabis flavomarginatus of Douglas & Scott (1865) are not the Himacerus apterus (Fabricius) and Nabis flavomarginatus Scholtz of today, but refer to Himacerus mirmicoides (O. Costa) and Himacerus major (A. Costa), respectively, all frequently encountered species. Furthermore, Nabis ericetorum Scholtz and Nabis lineatus Dahlbom are absent from Douglas & Scott (1865), but they are much less common than their similar congeners, Nabis rugosus (Linnaeus) and Nabis limbatus Dahlbom, respectively, so the degree of confusion here is likely to be small. These ambiguities do not occur in the Synopsis.

#### ANTHOCORIDAE

## Acompocoris pygmaeus\*

Acompocoris alpinus Reuter is absent in Douglas & Scott (1865), so some records for Acompocoris pygmaeus (Fallén) at this time may refer to it. Both species are widely distributed. This confusion does not occur in the Synopsis.

## Anthocoris nemoralis

The common *Anthocoris confusus* Reuter was not recognised as British until Edwards (1890), so many earlier records for the common *Anthocoris nemoralis* (Fabricius) are likely to refer to this species.

#### MICROPHYSIDAE

#### *Myrmedobia* species

Myrmedobia distinguenda (Loricula distinguenda (Reuter) of today) was not recognised as British until Saunders (1892a & 1892b), and any previous encounters were likely to have been referred to M. coleoptrata (Loricula coleoptrata (Fallén)) (males only) or M. tenella (Loricula exilis (Fallén)) (both sexes). M. inconspicua (Loricula inconspicua (Douglas & Scott)) was added in Douglas & Scott (1871), as Pseudophleps inconspicuus, but given that it is restricted to coastal situations, it is unlikely to be the subject of significant prior confusion with its congeners. Before the Synopsis there is the possibility of greater confusion, since of the above names only M. coleoptrata appears in Douglas & Scott (1865).

#### **MIRIDAE**

#### Apocremnus ambiguus\*

The use of this name in Douglas & Scott (1865) does not refer to the *Psallus ambiguus* (Fallén) of today, but to *Psallus betuleti* (Fallén) and *Psallus montanus* Josifov. The real *P. ambiguus* goes by the name *A. obscurus*. These species are frequently encountered. This confusion does not occur in the Synopsis.

## Atractotomus species

The *Atractotomus magnicornis* (Fallén) described in Douglas & Scott (1865) is really *Atractotomus mali* (Meyer-Dür). This was corrected in Douglas & Scott (1869), but the real *A. magnicornis* was not recognised as British until Saunders (1879), and would have been recorded as *A. mali* prior to this time. Hence, both names are likely to have been the subject of ambiguity, both species having been referred to by the wrong name at one time or another.

## Camaronotus cinnamomopterus and Pilophorus bifasciatus

The common *Pilophorus perplexus* Douglas & Scott was not recognised as British until Reuter (1878), and many of the records for *C. cinnamomopterus* of Douglas & Scott (1865) and *P. bifasciatus* of the Synopsis are therefore likely to refer to this species.

#### Conostethus salinus

Conostethus brevis Reuter was first reported as British in Reuter (1877), and the above name went for both species prior to this time. However, *C. brevis* is much less frequently encountered than *C. salinus* (Conostethus griseus Douglas & Scott of today), and the degree of confusion is probably small. Neither species is mentioned in Douglas & Scott (1865).

## Dicyphus pallidus and Dicyphus errans

The *Dicyphus pallidus* of Douglas & Scott (1865) and the Synopsis is not the *Dicyphus pallidus* (Herrich-Schaeffer) of today but *Dicyphus epilobii* Reuter (Reuter, 1883). *Dicyphus constrictus* (Boheman) and *Dicyphus stachydis* J. Sahlberg were not recognised as British until Reuter (1883), and earlier records were probably assigned to *Dicyphus errans* (Wolff), given the shared host plant of Hedge Woundwort, *Stachys sylvatica* L. (Lamiaceae).

## Globiceps flavomaculatus\*

The use of this name in Douglas & Scott (1865) does not refer to the *Globiceps flavomaculatus* (Fabricius) of today, but to *Globiceps fulvicollis* Jakovlev, both of which are widely distributed. The real *G. flavomaculatus* goes by the name *G. selectus* in Douglas & Scott (1865). This confusion does not occur in the Synopsis.

## Lygus contaminatus\*

The use of this name in Douglas & Scott (1865) does not refer to the *Neolygus contaminatus* (Fallén) of today, but to *Neolygus viridis* (Fallén). The real *N. contaminatus* goes by the name *Lygus sulcifrons*. Both species are frequently encountered. This confusion does not occur in the Synopsis.

#### Oncotylus tanaceti\*

The use of this name in Douglas & Scott (1865) does not refer to the *Megalocoleus tanaceti* (Fallén) of today, but to *Tinicephalus hortulanus* (Meyer-Dür). The real *M. tanaceti* goes by the name *Oncotylus pilosus*. Both species are frequently encountered, but occur on different host plants. This confusion does not occur in the Synopsis.

#### Orthotylus species

There is a lot of confusion here. The orthotylines of elm (*Orthotylus ochrotrichus* Fieber, *Orthotylus prasinus* (Fallén) and *Orthotylus viridinervis* (Kirschbaum)) and broom (*Orthotylus adenocarpi* (Perris), *Orthotylus concolor* (Kirschbaum) and *Orthotylus virescens* (Douglas & Scott)) are likely to have been confused on these hosts. The Synopsis did not included *O. viridinervis*, *O. ochrotrichus* and *O. virescens*, creating uncertainty as to which name would have been given to these species. Douglas & Scott (1865) included five of the six names (all except for *O. adenocarpi*), assigned to the genus *Litosoma*, but, according to the Synopsis and Saunders (1892a), *L. prasinus* referred to *Orthotylus flavosparsus* (C.R. Sahlberg) and *L. viridinervis* to *O. prasinus*. Furthermore, the *L. nassatus* of Douglas & Scott (1865) and *O. nassatus* of the Synopsis are not the *Orthotylus nassatus* (Fabricius) of today, but refer to *Orthotylus marginalis* Reuter, which situation was not corrected until Saunders (1892a). The *O. chloropterus* of Saunders (1892a) refers to *O. virescens*, but referred to *Platycranus bicolor* (Douglas & Scott) in Douglas & Scott (1865) and the Synopsis. The name *O. virescens* is absent from the Synopsis, but *L. virescens* is present in Douglas & Scott (1865).

## Phytocoris species

In the Synopsis the name *Phytocoris populi* does not refer to the *Phytocoris populi* (Linnaeus) of today, but to *Phytocoris dimidiatus* Kirschbaum. Douglas & Scott (1865) did not include this ambiguity, referring to the two species with the separate names *P. distinctus* and *P. dubius*,

respectively, but the *P. dimidiatus* of Douglas & Scott (1865) is really *Phytocoris longipennis* Flor. Furthermore, the *P. ulmi* of Douglas & Scott (1865) is actually the *Phytocoris varipes* Boheman of today. The *Phytocoris ulmi* (Linnaeus) of today goes by the name *P. divergens*.

## Psallus roseus\*

The use of this name in Douglas & Scott (1865) does not refer to the *Psallus roseus* of the Synopsis (*Psallus falleni* Reuter of today) but to *P. Kirschbaumi* (*Psallus flavellus* Stichel of today), both widely distributed species. The real *P. falleni* goes by the name *P. salicis*.

#### Psallus salicis\*

The use of this name in Douglas & Scott (1865) does not refer to the species known as *Psallus salicis* (Kirschbaum) today but to *Psallus falleni* Reuter, as mentioned above. The real *P. salicis* was known as *P. Alni*. This confusion does not occur in the Synopsis.

#### Psallus varians\*

The *Psallus diminutus* of the Synopsis (*Psallus confusus* Rieger and *Psallus mollis* (Mulsant & Rey) of today) is absent from Douglas & Scott (1865), and these species are therefore likely to have been recorded as *P. varians*, given that they all commonly occur on the same host plant, oak, *Quercus* spp. (Fagaceae).

#### **SALDIDAE**

### Salda elegantula\*

The use of this name in Douglas & Scott (1865) does not refer to the *Chartoscirta elegantula* (Fallén) of today, but to *Chartoscirta cocksii* (Curtis). The real *C. elegantula* is absent from Douglas & Scott (1865). Both of these widely distributed species would therefore have been recorded under the above name prior to the Synopsis, which did not include the confusion.

## Salda riparia\*

The use of this name in Douglas & Scott (1865) does not refer to the *S. riparia* of Saunders (1892a) (*Teloleuca pellucens* (Fabricius) of today), but to *S. scotica* (*Macrosaldula scotica* (Curtis) of today). The real *T. pelluscens* (*S. conspicua* of the Synopsis) is absent from Douglas & Scott (1865).

#### **HEBRIDAE**

#### Hebrus pusillus

*Hebrus ruficeps* Thomson was first reported as British by Reuter (1877), and the above name went for both species prior to this time. The new species is the commoner of the two, and the above name could refer to either species.

#### **GERRIDAE**

#### Gerris species\*

The *G. aspera*, *G. costae* and *G. odontogaster* of the Synopsis are absent from Douglas & Scott (1865). The last two omissions were promptly reported by Douglas (1866), but *G. aspera* was not reported as British until Douglas (1876) and the Synopsis. Consequently, records for these species may have gone by the names of their congeners prior to the Synopsis.

#### **CORIXIDAE**

## Corixa species\*

There are many absentees from the list of corixids presented in Douglas & Scott (1865), compared with that of the Synopsis, a number of which are widespread and may have been recorded under the names of congeners that are included in the list. Records for the absentee *Callicorixa praeusta* (Fieber) are likely to have been assigned to *Callicorixa wollastoni* (Douglas & Scott) (*Corixa Wollastoni* of Douglas & Scott (1865)), until the former's addition by Douglas (1866). *Sigara limitata* (Fieber), *Sigara scotti* (Douglas & Scott) and *Sigara venusta* (Douglas & Scott) were first reported as British by Douglas (1866), Douglas & Scott (1868) and Douglas & Scott (1869), respectively (as *C. limitata*, *C. scotti* and *C. venusta*). Douglas & Scott (1869) also added *Arctocorisa carinata* (C.R. Sahlberg) and *Arctocorisa germari* (Fieber), as *C. Sharpi* and *C. intricata*, respectively.

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR DEVON INTO VICE-COUNTY LISTS FOR VC3 AND VC4

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#### Introduction

The list of Hemiptera-Heteroptera for Devon in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian South Devon (VC3) and Watsonian North Devon (VC4).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a, 2018b, 2018c & 2018d). The resulting vice-county lists include 285 records, compared with 337 for the original Devon list. The list for Devon as a whole has shortened by 108, the decrease arising from two species added to the list and 110 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Devon are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking the records relate to the references from which they were derived, as indicated in Table 1.

#### The divided records

Aradidae		
Aneurus avenius (Dufour) [DELETED]	-	_
Aneurus laevis (Fabricius) [DELETED]	-	_
Aradus depressus (Fabricius) [DELETED]	-	-
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus)	VC3 (53)	-
Cyphostethus tristriatus (Fabricius) [DELETED]	-	-
Elasmostethus interstinctus (Linnaeus)	VC3 (12)	-
Elasmucha grisea (Linnaeus)	VC3 (46)	-
Cydnidae		
Adomerus biguttatus (Linnaeus)	VC3 (4)	VC4 (4)
Legnotus limbosus (Geoffroy)	VC3 (24)	VC4 (10)
Sehirus luctuosus Mulsant & Rey	VC3 (28)	_
Tritomegas bicolor (Linnaeus) [DELETED]	-	-
Thyreocoridae		
Thyreocoris scarabaeoides (Linnaeus)	VC3 (24)	VC4 (52)
SCUTELLERIDAE		
Eurygaster maura (Linnaeus) [DELETED]	-	_
Eurygaster testudinaria (Geoffroy) [DELETED]	-	_
Odontoscelis lineola Rambur	-	VC4 (4)
		` ′

PENTATOMIDAE		
Aelia acuminata (Linnaeus)	VC3 (52)	_
Dolycoris baccarum (Linnaeus)	VC3 (12)	VC4 (47)
Eurydema dominulus (Scopoli) [DELETED]	-	-
Eurydema oleracea (Linnaeus)	VC3 (24)	-
Mecidea lindbergi Wagner [NEW]	VC3 (44)	_
Neottiglossa pusilla (Gmelin) [DELETED]	-	_
Palomena prasina (Linnaeus)	VC3 (12)	_
Pentatoma rufipes (Linnaeus)	VC3 (12)	_
Peribalus strictus (Fabricius)	VC3 (23)	-
Picromerus bidens (Linnaeus)	VC3 (53)	-
Piezodorus lituratus (Fabricius)	VC3 (12)	-
Podops inunctus (Fabricius)	VC3 (53)	-
Rhacognathus punctatus (Linnaeus)	VC3 (24)	-
Troilus luridus (Fabricius)	VC3 (53)	-
Zicrona caerulea (Linnaeus)	-	VC4 (10)
Coreidae		
Arenocoris fallenii (Schilling)	_	VC4 (4)
Coreus marginatus (Linnaeus)	VC3 (12)	-
Coriomeris denticulatus (Scopoli)	VC3 (24)	_
Enoplops scapha (Fabricius)	VC3 (48)	_
Syromastus rhombeus (Linnaeus)	VC3 (28)	VC4 (47)
ALYDIDAE	*******	
Alydus calcaratus (Linnaeus)	VC3 (24)	-
RHOPALIDAE		
Chorosoma schillingii (Schilling) [DELETED]	-	_
Corizus hyoscyami (Linnaeus)	VC3 (4)	VC4 (4)
Liorhyssus hyalinus (Fabricius)	-	VC4 (34)
Myrmus miriformis (Fallén)	-	VC4 (52)
Rhopalus subrufus (Gmelin)	VC3 (12)	VC4 (10)
PYRRHOCORIDAE		
Pyrrhocoris apterus (Linnaeus)	VC3 (24)	-
STENOCEPHALIDAE	1100 (1)	<b>V</b> (C) (4)
Dicranocephalus agilis (Scopoli)	VC3 (4)	VC4 (4)
Dicranocephalus albipes (Fabricius) [DELETED]	-	-
Dicranocephalus medius (Mulsant & Rey)	VC3 (4)	-
Lygaeidae		
Aphanus rolandri (Linnaeus)	VC3 (24)	VC4 (2)
Beosus maritimus (Scopoli)	VC3 (4)	-
Chilacis typhae (Perris) [DELETED]	-	-
Cymus claviculus (Fallén)	VC3 (12)	-
Cymus glandicolor Hahn	VC3 (22)	-
Drymus brunneus (R.F. Sahlberg)	VC3 (24)	-
Drymus pilipes Fieber	VC3 (24)	-
Drymus ryeii Douglas & Scott [DELETED]		_
	-	
Drymus sylvaticus (Fabricius)	VC3 (29)	-
Eremocoris podagricus (Fabricius)	-	- VC4 (24)
	VC3 (29) - VC3 (24)	- VC4 (24) -

<b>.</b>		
Lygaeidae (continued)	V/C2 (40)	
Henestaris laticeps (Curtis)	VC3 (40)	-
Heterogaster urticae (Fabricius) [DELETED]	- NG2 (40)	-
Ischnocoris angustulus (Boheman)	VC3 (40)	-
Kleidocerys ericae (Horváth)	VC3 (12)	-
Kleidocerys resedae (Panzer)	VC3 (24)	-
Lamproplax picea (Flor)	VC3 (7)	- MO4 (21)
Lasiosomus enervis (Herrich-Schaeffer)		VC4 (31)
Macrodema microptera (Curtis)	VC3 (12)	VC4 (14)
Megalonotus antennatus (Schilling)	VC3 (24)	-
Megalonotus dilatatus (Herrich-Schaeffer)	VC3 (24)	-
Megalonotus praetextatus (Herrich-Schaeffer)	VC3 (40)	-
Notochilus limbatus Fieber	VC3 (26)	VC4 (47)
Nysius ericae (Schilling) [DELETED]	-	-
Nysius thymi (Wolff)	-	VC4 (36)
Peritrechus geniculatus (Hahn)	-	VC4 (31)
Peritrechus lundii (Gmelin)	VC3 (28)	-
Peritrechus nubilus (Fallén) [DELETED]	-	-
Plinthisus brevipennis (Latreille)	VC3 (8)	VC4 (31)
Raglius alboacuminatus (Goeze)	VC3 (24)	-
Rhyparochromus pini (Linnaeus)	VC3 (53)	VC4 (4)
Scolopostethus affinis (Schilling) [DELETED]	-	-
Scolopostethus decoratus (Hahn)	VC3 (12)	-
Scolopostethus grandis Horváth [DELETED]	-	-
Scolopostethus pictus (Schilling) [DELETED]	_	-
Scolopostethus puberulus Horváth	VC3 (49)	-
Scolopostethus thomsoni Reuter	VC3 (12)	-
Stygnocoris fuligineus (Geoffroy)	VC3 (12)	VC4 (47)
Stygnocoris rusticus (Fallén)	VC3 (12)	-
Stygnocoris sabulosus (Schilling)	VC3 (12)	-
Taphropeltus contractus (Herrich-Schaeffer)	VC3 (24)	-
Trapezonotus ullrichi (Fieber)	VC3 (4)	-
Tropistethus holosericus (Scholtz)	VC3 (40)	-
Xanthochilus quadratus (Fabricius)	VC3 (6)	-
BERYTIDAE		
Berytinus clavipes (Fabricius) [DELETED]	_	_
Berytinus crassipes (Herrich-Schaeffer) [DELETED]	_	_
Berytinus hirticornis (Brullé)	VC3 (11)	_
Berytinus minor (Herrich-Schaeffer)	-	VC4 (24)
Berytinus montivagus (Meyer-Dür)	VC3 (53)	VC4 (24)
Berytinus signoreti (Fieber) [DELETED]	-	-
Gampsocoris punctipes (Germar)	VC3 (24)	VC4 (52)
Metatropis rufescens (Herrich-Schaeffer)	VC3 (56)	-
Neides tipularius (Linnaeus)	VC3 (28)	_
Treates reputations (Ennueus)	V C3 (20)	
PIESMATIDAE		
Parapiesma quadratum (Fieber)	VC3 (30)	-
Piesma maculatum (Laporte)	VC3 (8)	-
TINGIDAE		
Acalypta brunnea (Germar)	VC3 (8)	_
Acalypta brunnea (Germar) Acalypta carinata (Panzer) [DELETED]	v C3 (0)	-
Acalypta carmaia (Panzer) [DELETED] Acalypta parvula (Fallén)	VC3 (24)	-
	v C3 (24)	_
Agramma laetum (Fallén) [DELETED]	-	-

TINGIDAE (CONTINUED)		
Campylosteira verna (Fallén) [DELETED]	_	_
Catoplatus fabricii (Stål) [DELETED]	_	_
Derephysia foliacea (Fallén)	VC3 (12)	VC4 (52)
Dictyla convergens (Herrich-Schaeffer) [DELETED]	-	-
Dictyonota strichnocera Fieber	VC3 (24)	-
Kalama tricornis (Schrank) [DELETED]	-	-
Oncochila simplex (Herrich-Schaeffer) [DELETED]	-	-
Physatocheila dumetorum (Herrich-Schaeffer)	VC3 (49)	-
Physatocheila smreczynskii China	VC3 (1)	-
Stephanitis rhododrendri Horváth [DELETED]	-	-
Tingis ampliata (Herrich-Schaeffer) [DELETED]	-	- NGA (47)
Tingis cardui (Linnaeus)	-	VC4 (47)
Tingis reticulata Herrich-Schaeffer [DELETED]	-	-
Reduviidae		
Empicoris culiciformis (De Geer) [DELETED]	_	_
Empicoris vagabundus (Linnaeus)	VC3 (24)	_
Pygolampis bidentata (Goeze) [DELETED]	-	_
, , , , , , , , , , , , , , , , , , , ,		
Nabidae		
Himacerus boops (Schiødte) [DELETED]	-	-
Himacerus major (A. Costa)	VC3 (29)	-
Himacerus mirmicoides (O. Costa)	VC3 (12)	-
Nabis ericetorum Scholtz [DELETED]	- ************************************	-
Nabis ferus (Linnaeus)	VC3 (12)	- NG4 (26)
Nabis flavomarginatus Scholtz	-	VC4 (26)
Nabis limbatus Dahlbom [DELETED] Nabis lineatus Dahlbom	VC3 (52)	-
Nabis pseudoferus Remane	VC3 (32)	VC4 (35)
Nabis rugosus (Linnaeus)	VC3 (12)	- -
Title is ringeoms (Zimineus)	, 66 (12)	
ANTHOCORIDAE		
Acompocoris alpinus Reuter	VC3 (12)	-
Acompocoris pygmaeus (Fallén) [DELETED]	_	-
Anthocoris confusus Reuter [DELETED]	-	-
Anthocoris gallarumulmi (De Geer) [DELETED]	-	-
Anthocoris nemoralis (Fabricius) [DELETED]	-	-
Anthocoris nemorum (Linnaeus) [DELETED]	-	-
Buchananiella continua (F.B. White)	VC3 (41)	_
Cardiastethus fasciiventris (Garbiglietti) Dufouriellus ater (Dufour)	VC3 (4) VC3 (8)	-
Lyctocoris campestris (Fabricius)	VC3 (8) VC3 (8)	-
Orius laevigatus (Fieber)	VC3 (8) VC3 (9)	_
Orius majusculus (Reuter)	VC3 (8)	_
Orius niger (Wolff) [DELETED]	-	_
Temnostethus gracilis Horváth	VC3 (19)	VC4 (37)
Tetraphleps bicuspis (Herrich-Schaeffer)	VC3 (8)	-
Xylocoris cursitans (Fallén)	VC3 (12)	VC4 (4)
Xylocoris galactinus (Fieber) [DELETED]	-	-
CIMICIDAE		
Cimex columbarius Jenyns [DELETED]	-	-
Cimex lectularius Linnaeus [DELETED]	-	-
Cimex pipistrelli Jenyns [DELETED]	-	-

CIMICIDAE (CONTINUED)		
Oeciacus hirundinis (Lamarck) [DELETED]	_	_
Occidens infinitums (Entitles) [DEEETED]	_	_
MICROPHYSIDAE		
Loricula elegantula (Baerensprung)	-	VC4 (37)
Loricula inconspicua (Douglas & Scott)	VC3 (40)	-
Loricula pselaphiformis Curtis	-	VC4 (37)
Loricula ruficeps (Reuter) [NEW]	VC3 (43)	-
	` ,	
MIRIDAE		
Acetropis gimmerthalii (Flor) [DELETED]	-	-
Adelphocoris lineolatus (Goeze)	VC3 (24)	-
Adelphocoris seticornis (Fabricius)	VC3 (53)	VC4 (37)
Adelphocoris ticinensis (Meyer-Dür)	VC3 (12)	-
Amblytylus nasutus (Kirschbaum)	VC3 (55)	-
Apolygus lucorum (Meyer-Dür) [DELETED]	-	-
Apolygus spinolae (Meyer-Dür)	VC3 (24)	-
Asciodema obsoleta (Fieber) [DELETED]	-	-
Atractotomus magnicornis (Fallén)	VC3 (12)	-
Atractotomus mali (Meyer-Dür) [DELETED]	-	-
Blepharidopterus angulatus (Fallén)	VC3 (55)	-
Bothynotus pilosus (Boheman)	VC3 (27)	-
Bryocoris pteridis (Fallén)	VC3 (24)	VC4 (52)
Calocoris roseomaculatus (De Geer)	VC3 (12)	-
Camptozygum aequale (Villers) [DELETED]	-	-
Campyloneura virgula (Herrich-Schaeffer)	VC3 (12)	-
Capsodes flavomarginatus (Donovan)	VC3 (12)	-
Capsodes gothicus (Linnaeus)	VC3 (3)	-
Capsodes sulcatus (Fieber)	VC3 (4)	-
Capsus ater (Linnaeus) [DELETED]	-	-
Charagochilus gyllenhalii (Fallén)	VC3 (12)	-
Chlamydatus pullus (Reuter) [DELETED]	-	-
Chlamydatus saltitans (Fallén) [DELETED]	-	-
Chlamydatus wilkinsoni (Douglas & Scott) [DELETED]	-	-
Closterotomus fulvomaculatus (De Geer)	VC3 (24)	-
Closterotomus norwegicus (Gmelin) [DELETED]	-	-
Compsidolon salicellum (Herrich-Schaeffer) [DELETED]	-	-
Cyllecoris histrionius (Linnaeus) [DELETED]	- V(C2 (24)	-
Cyrtorhinus caricis (Fallén)	VC3 (24)	-
Deraeocoris ruber (Linnaeus)	VC3 (24)	-
Deraeocoris scutellaris (Fabricius) [DELETED]	-	-
Dichrooscytus rufipennis (Fallén) [DELETED] Dicyphus annulatus (Wolff)	VC3 (55)	-
T. T. C.	VC3 (55) VC3 (55)	VC4 (33)
Dicyphus constrictus (Boheman) Dicyphus epilobii Reuter	VC3 (33) VC3 (24)	VC4 (33)
Dicyphus errans (Wolff)	VC3 (24) VC3 (55)	-
Dicyphus escalerae Lindberg	VC3 (33) VC3 (42)	-
Dicyphus esculerae Endoerg Dicyphus globulifer (Fallén)	VC3 (42) VC3 (12)	-
Dicyphus globulger (Fallett) Dicyphus pallicornis (Fieber) [DELETED]	VC3 (12)	-
Dryophilocoris flavoquadrimaculatus (De Geer) [DELETED]	-	_
Globiceps flavomaculatus (Fabricius)	VC3 (24)	_
Globiceps fulvicollis Jakovlev [DELETED]	-	_
Grypocoris stysi (Wagner)	VC3 (12)	_
Hallodapus rufescens (Burmeister) [DELETED]	-	_
Harpocera thoracica (Fallén)	VC3 (24)	_
12 pocor a moraco (1 anon)	, 55 (24)	

RIDAE (CONTINUED)		
Heterocordylus tibialis (Hahn) [DELETED]	-	_
Heterotoma planicornis (Pallas) [DELETED]	-	_
Hoplomachus thunbergii (Fallén)	VC3 (24)	-
Leptopterna dolabrata (Linnaeus)	VC3 (24)	-
Leptopterna ferrugata (Fallén) [DELETED]	-	-
Liocoris tripustulatus (Fabricius) [DELETED]	-	-
Lopus decolor (Fallén)	VC3 (12)	-
Lygocoris pabulinus (Linnaeus)	VC3 (24)	-
Lygocoris rugicollis (Fallén)	VC3 (15)	-
Lygus rugulipennis Poppius	VC3 (20)	VC4 (26
Macrolophus rubi Woodroffe [DELETED]	-	-
Macrotylus paykullii (Fallén)	VC3 (55)	-
Malacocoris chlorizans (Panzer) [DELETED]	-	-
Mecomma ambulans (Fallén)	VC3 (24)	-
Megacoelum infusum (Herrich-Schaeffer)	VC3 (24)	-
Megalocoleus molliculus (Fallén)	VC3 (12)	-
Megalocoleus tanaceti (Fallén)	VC3 (24)	
Miridius quadrivirgatus (A. Costa)	VC3 (12)	
Miris striatus (Linnaeus)	VC3 (24)	-
Monalocoris filicis (Linnaeus) [DELETED]	-	-
Monosynamma sabulicola (Wagner)	-	VC4 (3)
Neolygus viridis (Fallén) [DELETED]	-	-
Notostira elongata (Geoffroy) [DELETED]	-	-
Oncotylus viridiflavus (Goeze)	VC3 (12)	-
Orthocephalus coriaceus (Fabricius)	VC3 (12)	-
Orthocephalus saltator (Hahn)	VC3 (12)	-
Orthonotus rufifrons (Fallén)	VC3 (12)	-
Orthotylus bilineatus (Fallén)	-	VC4 (3°
Orthotylus ericetorum (Fallén)	VC3 (24)	VC4 (1
Orthotylus flavinervis (Kirschbaum) [DELETED]	-	-
Orthotylus flavosparsus (C.R. Sahlberg)	VC3 (54)	-
Orthotylus moncreaffi (Douglas & Scott)	VC3 (53)	-
Orthotylus nassatus (Fabricius) [DELETED]	-	-
Orthotylus prasinus (Fallén) [DELETED]	-	-
Orthotylus rubidus (Puton) [DELETED]	-	-
Orthotylus tenellus (Fallén) [DELETED]	-	-
Orthotylus virescens (Douglas & Scott) [DELETED]	-	-
Pachytomella parallela (Meyer-Dür)	VC3 (4)	-
Pantilius tunicatus (Fabricius) [DELETED]	-	-
Phoenicocoris obscurellus (Fallén) [DELETED]	-	-
Phylus coryli (Linnaeus)	VC3 (24)	-
Phylus melanocephalus (Linnaeus)	VC3 (24)	-
Phytocoris dimidiatus Kirschbaum [DELETED]	-	-
Phytocoris longipennis Flor [DELETED]	-	-
Phytocoris populi (Linnaeus) [DELETED]	-	-
Phytocoris tiliae (Fabricius) [DELETED]	-	-
Phytocoris ulmi (Linnaeus) [DELETED]	-	-
Phytocoris varipes Boheman [DELETED]	-	_
Pinalitus cervinus (Herrich-Schaeffer)	VC3 (24)	_
Pinalitus rubricatus (Fallén) [DELETED]	-	_
Pinalitus viscicola (Puton)	VC3 (12)	_
Pithanus maerkelii (Herrich-Schaeffer)	VC3 (12)	_
Plagiognathus arbustorum (Fabricius) [DELETED]	- ( ·)	_
I lagiognalius arousiorum (Fabricius) [DELETED]		

MIRIDAE (CONTINUED)		
Platycranus bicolor (Douglas & Scott)	VC3 (8)	_
Polymerus nigrita (Fallén) [DELETED]	-	_
Polymerus unifasciatus (Fabricius) [DELETED]	_	_
Psallodema fieberi (Fieber) [DELETED]	_	_
Psallus ambiguus (Fallén) [DELETED]	_	_
Psallus falleni Reuter [DELETED]	_	_
Psallus flavellus Stichel [DELETED]	_	_
Psallus haematodes (Gmelin) [DELETED]	_	_
Psallus lepidus Fieber [DELETED]	_	_
Psallus salicis (Kirschbaum) [DELETED]	_	_
Psallus varians (Herrich-Schaeffer) [DELETED]	_	_
Pseudoloxops coccineus (Meyer-Dür)	VC3 (24)	_
Rhabdomiris striatellus (Fabricius)	VC3 (24)	_
Stenodema calcarata (Fallén) [DELETED]	-	_
Stenodema holsata (Fabricius)	VC3 (24)	_
Stenodema laevigata (Linnaeus) [DELETED]	-	_
Stenotus binotatus (Fabricius)	VC3 (12)	_
Teratocoris antennatus (Boheman)	VC3 (55)	_
Teratocoris saundersi Douglas & Scott	VC3 (39)	
Tuponia mixticolor (A. Costa)	VC3 (5)	_
Tytthus pygmaeus (Zetterstedt)	VC3 (25)	_
Tymus pygmacus (Zettersteat)	V C3 (23)	
DIPSOCORIDAE		
Cryptostemma alienum Herrich-Schaeffer	VC3 (55)	VC4 (51)
Pachycoleus waltli Fieber	VC3 (51)	-
SALDIDAE		
Chartoscirta cincta (Herrich-Schaeffer)	VC3 (13)	-
Chartoscirta cocksii (Curtis)	VC3 (13)	-
Chiloxanthus pilosus (Fallén) [DELETED]	-	-
Halosalda lateralis (Fallén)	VC3 (24)	
Macrosaldula scotica (Curtis)		VC4 (18)
Salda littoralis (Linnaeus)	VC3 (55)	-
Saldula arenicola (Scholtz)	VC3 (4)	-
Saldula c-album (Fieber)	VC3 (55)	VC4 (52)
Saldula orthochila (Fieber)	VC3 (24)	-
Saldula pilosella (Thomson)	VC3 (54)	-
Saldula saltatoria (Linnaeus)	VC3 (24)	-
AEPOPHILIDAE	V(C2 (0)	V(C(4 (22))
Aepophilus bonnairei Signoret	VC3 (8)	VC4 (32)
MESOVELIIDAE		
Mesovelia furcata Mulsant & Rey	VC3 (16)	
Mesovena jurcana Maisant & Rey	VC3 (10)	-
HEBRIDAE		
Hebrus pusillus (Fallén)	VC3 (13)	_
Hebrus ruficeps Thomson	VC3 (13)	_
Teores respects included	, 03 (13)	
HYDROMETRIDAE		
Hydrometra stagnorum (Linnaeus)	VC3 (16)	VC4 (16)
		` '
VELIIDAE		
Microvelia reticulata (Burmeister)	VC3 (16)	-

VELIIDAE (CONTINUED)  Velia caprai Tamanini	VC3 (16)	VC4 (16)
GERRIDAE		
Aquarius najas (De Geer)	VC3 (16)	VC4 (16)
Gerris argentatus Schummel	VC3 (16)	-
Gerris gibbifer Schummel	VC3 (16)	VC4 (16)
Gerris lacustris (Linnaeus)	VC3 (16)	VC4 (16)
Gerris lateralis Schummel	VC3 (21)	-
Gerris odontogaster (Zetterstedt) [DELETED]	-	_
Gerris thoracicus Schummel	VC3 (16)	VC4 (16)
Nepidae		
Nepa cinerea Linnaeus	VC3 (16)	_
Ranatra linearis (Linnaeus)	VC3 (16)	-
Naucoridae		
Ilyocoris cimicoides (Linnaeus)	VC3 (16)	VC4 (16)
APHELOCHEIRIDAE		
Aphelocheirus aestivalis (Fabricius)	VC3 (16)	VC4 (16)
Notonectidae		
Notonecta glauca Linnaeus	VC3 (16)	VC4 (16)
Notonecta maculata Fabricius	VC3 (16)	VC4 (21)
Notonecta obliqua Thunberg	VC3 (16)	VC4 (21)
Notonecta viridis Delcourt	VC3 (16)	VC4 (16)
PLEIDAE		
Plea minutissima Leach	VC3 (16)	VC4 (16)
	VC3 (10)	VC4 (16)
CORIXIDAE	VC3 (10)	VC4 (16)
CORIXIDAE  Arctocorisa germari (Fieber)		-
Arctocorisa germari (Fieber)	VC3 (21)	-
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber)	VC3 (21) VC3 (16)	- VC4 (16)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott)	VC3 (21) VC3 (16) VC3 (21)	- VC4 (16)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach	VC3 (21) VC3 (16) VC3 (21) VC3 (24)	- VC4 (16) - VC4 (21)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger)	VC3 (21) VC3 (16) VC3 (21)	- VC4 (16)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger) Cymatia bonsdorffii (C.R. Sahlberg) [DELETED]	VC3 (21) VC3 (16) VC3 (21) VC3 (24)	- VC4 (16) - VC4 (21)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger)	VC3 (21) VC3 (16) VC3 (21) VC3 (24) VC3 (16)	- VC4 (16) - VC4 (21) VC4 (16)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger) Cymatia bonsdorffii (C.R. Sahlberg) [DELETED] Cymatia coleoptrata (Fabricius)	VC3 (21) VC3 (16) VC3 (21) VC3 (24) VC3 (16) - VC3 (16)	- VC4 (16) - VC4 (21) VC4 (16)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger) Cymatia bonsdorffii (C.R. Sahlberg) [DELETED] Cymatia coleoptrata (Fabricius) Glaenocorisa propinqua (Fieber) [DELETED]	VC3 (21) VC3 (16) VC3 (21) VC3 (24) VC3 (16)	- VC4 (16) - VC4 (21) VC4 (16) - VC4 (17)
Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger) Cymatia bonsdorffii (C.R. Sahlberg) [DELETED] Cymatia coleoptrata (Fabricius) Glaenocorisa propinqua (Fieber) [DELETED] Hesperocorixa castanea (Thomson)	VC3 (21) VC3 (16) VC3 (21) VC3 (24) VC3 (16) - VC3 (16)	- VC4 (16) - VC4 (21) VC4 (16) - VC4 (17) - VC4 (21)
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Arctocorisa germari (Fieber) Callicorixa praeusta (Fieber) Callicorixa wollastoni (Douglas & Scott) Corixa affinis Leach Corixa punctata (Illiger) Cymatia bonsdorffii (C.R. Sahlberg) [DELETED] Cymatia coleoptrata (Fabricius) Glaenocorisa propinqua (Fieber) [DELETED] Hesperocorixa castanea (Thomson) Hesperocorixa linnaei (Fieber) Hesperocorixa moesta (Fieber) Hesperocorixa sahlbergi (Fieber) Micronecta poweri (Douglas & Scott) Micronecta scholtzi (Fieber) Paracorixa concinna (Fieber) [DELETED] Sigara distincta (Fieber)	VC3 (21) VC3 (16) VC3 (21) VC3 (24) VC3 (16) - VC3 (16) VC3 (16) VC3 (21) VC3 (16) - VC3 (16) - VC3 (16)	- VC4 (16) - VC4 (21) VC4 (16) - VC4 (17) - VC4 (21) VC4 (16) - VC4 (16) - VC4 (16) - VC4 (16)
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## CORIXIDAE (CONTINUED)

Sigara selecta (Fieber)	VC3 (21)	-
Sigara semistriata (Fieber)	VC3 (24)	-
Sigara stagnalis (Leach)	VC3 (16)	-
Sigara venusta (Douglas & Scott)	VC3 (16)	-

During my research for this article I discovered some new vice-county records for the neighbouring county of Somerset, which I list below.

Charagochilus gyllenhalii (Fallén) (Miridae) VC6 (45)

Closterotomus fulvomaculatus (De Geer) (Miridae) VC6 (45)

Cyllecoris histrionius (Linnaeus) (Miridae) VC6 (45)

Heterocordylus genistae (Scopoli) (Miridae) VC6 (50)

Mecomma ambulans (Fallén) (Miridae) VC6 (45)

Orthocephalus saltator (Hahn) (Miridae) VC6 (45)

Phylus melanocephalus (Linnaeus) (Miridae) VC6 (45)

Psallodema fieberi (Fieber) (Miridae) VC6 (50)

Psallus lepidus Fieber (Miridae) VC6 (45)

Psallus varians (Herrich-Schaeffer) (Miridae) VC6 (45)

Tinicephalus hortulanus (Meyer-Dür) VC6 (50)

TABLE 1. The references relating to the numbers in the list of divided records.

		1	
(1)	Alexander (2007)	(29)	Thomas (1955b)
(2)	Alexander et al. (1999)	(30)	Thomas (1956)
(3)	Alexander & Grove (1991a)	(31)	Whitehead (2004)
(4)	Alexander & Grove (1991b)	(32)	Wollaston (1942)
(5)	Barclay & Nau (2003)	(33)	Woodroffe (1958)
(6)	Bedwell (1920)	(34)	Woodroffe (1959a)
(7)	Bedwell (1924)	(35)	Woodroffe (1959b)
(8)	Bignell (1906)	(36)	Woodroffe (1959c)
(9)	Britten (1939)	(37)	Woodroffe (1959d)
(10)	Campbell-Taylor (1943)	(38)	Woodroffe (1967a)
(11)	China (1943)	(39)	Woodroffe (1967b)
(12)	Collett (1938)	(40)	Whitehead (2009)
(13)	Drake (2008)	(41)	Aukema (2007)
(14)	Hale-Carpenter (1943)	(42)	Aukema (2010)
(15)	Hey (1935)	(43)	Ryan (2017a)
(16)	Huxley (2003)	(44)	Ryan (2017b)
(17)	Lansbury (1956)	(45)	Blathwayt (1889)
(18)	Lansbury (1961)	(46)	Hellins (1874)
(19)	Le Quesne (1955)	(47)	Swale (1893)
(20)	Leston & Southwood (1961)	(48)	Anonymous (1897)
(21)	Morgan (1957)	(49)	Saunders (1899)
(22)	Morris (1971)	(50)	Saunders (1905)
(23)	Nau (1995)	(51)	Champion (1908a)
(24)	Parfitt (1884)	(52)	Champion (1908b)
(25)	Scudder (1957a)	(53)	Edmonds (1915)
(26)	Scudder (1957b)	(54)	Champion (1915)
(27)	Southgate (1959)	(55)	Champion (1917a)
(28)	Thomas (1955a)	(56)	Champion (1917b)

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# SPECIES ACCOUNTS FOR THE HEMIPTERA-HETEROPTERA REPORTED AS NEW TO THE BRITISH ISLES SINCE SOUTHWOOD & LESTON (1959): 2015 TO THE PRESENT

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#### Introduction

This is the seventh and final instalment of species accounts which expand upon the Addendum to Southwood & Leston (1959) (Ryan, 2012 & 2013). The previous instalments (Ryan, 2015, 2016a, 2016b, 2017a, 2017b & 2018) covered the species announced as new to the British Isles in the period 1959 to 2014, which is here extended to the present day. As before, the species accounts are based upon details published in the national entomological literature up to the present time.

The numbering of the species accounts follows that of Ryan (2012), which places them within the taxonomic sequence of Southwood & Leston (1959). Images for the bugs may be found at the British Bugs website (www.britishbugs.org.uk) and elsewhere on the internet, such as Flickr (www.flickr.com). References are not cited within the species accounts, in order to avoid cluttering the prose. The evidence base for the accounts is instead given in an annotated bibliography.

## **Species accounts**

## 299C Dicyphus tamaninii Wagner (Miridae)

This plant bug was first reported from the British Isles by M. G. Telfer, who took it at Crystal Palace, London (West Kent) sweeping vegetation on disturbed ground on 23 August 2013. An earlier record exists from Battersea Power Station, London (Surrey) taken on 13 May 2008, also from vegetation growing on disturbed ground. It has since been recorded elsewhere in the London area, again on disturbed ground, adding South Essex to the list of recorded counties. In addition to the above months, adults have been found in September. The bug has been associated with great willowherb, *Epilobium hirsutum* L. The insect is very similar to *Dicyphus escalerae* Lindberg, but can be separated by the form of the left clasper.

## 203B Orius horvathi (Reuter) (Anthocoridae)

This flower bug was first found in the British Isles by P. Kirby beating Austrian Pine, *Pinus nigra*, at Westwood, Peterborough, VC32 on 10 July 2014. Males can be identified by examination of the paramere.

#### 180A *Nabis capsiformis* Germar (Nabidae)

This damsel bug was first found in the British Isles in a moth trap by D. Appleton at Porthgwarra, Cornwall on 21 November 2014. The bug is unusual for the genus in having forewings that extend well beyond the end of the abdomen.

#### 271A Psallus anaemicus Seidenstücker (Miridae)

#### 271B *Psallus helenae* Josifov (Miridae)

These plant bugs were first found in the British Isles by P. Kirby beating Turkey Oak, *Quercus cerris*, at Thorpe Park, Peterborough, VC32 on 16 June 2014. Both species have since been found on Turkey oak in Oxfordshire, *P. helenae* in Hampshire, and *P. anaemicus*, in Essex and Berkshire, in the months of June and July. They can be identified by examination of the male paramere.

## 041A Mecidea lindbergi Wagner (Pentatomidae)

This shieldbug was first found in the British Isles by P. Harris in a moth trap at Weymouth, Dorset on 17 December 2015. Later that month, the bug was taken at light a number of times in South Hampshire, South Devon and Dorset. Its narrow, elongate shape is unlike that of any other British shieldbug.

## 271C Psallus lucanicus Wagner (Miridae)

This plant bug was first found in the British Isles by B. S. Nau beating Turkey Oak in Bedfordshire in June 2015. In the same month, and on the same plant, it was found in Oxfordshire. The bug can be identified by examination of the male paramere.

## 130G Spilostethus pandurus (Scopoli) (Lygaeidae)

This groundbug was first reported as British from a specimen found on the flower head of *Senecio jacobaea* at a brownfield site in Ashford, East Kent by J. Kaunang on 30 July 2015. The bug is distinctive and unlikely to be confused with any other British species.

## 390A Adelphocoris quadripunctatus (Fabricius) (Miridae)

This capsid bug was first identified as British from a photograph taken by C. Lawrence on 18 July 2016 of an example on a flower head of *Lotus pedunculatus* beside a pond at Rhondda Cynon Taf, South Wales (VC41). Further specimens have been found at several sites in this vice-county, together with four museum specimens from the late 19<sup>th</sup> Century taken in East Sussex and Surrey, adding the months of August and September to the bug's seasonal distribution, and *Digitalis purpurea* as a plant association. It remains to be seen how widespread and common this bug now is in Britain, and the extent to which it has previously been confused with the similar *Adelphocoris lineolatus* (Goeze). The former may be separated from the latter by the course, dark pubescence on the hemelytra and the presence of four blackish spots on the pronotum.

## 028B Sciocoris homalonotus Fieber (Pentatomidae)

This shieldbug was first taken in Britain on 7 June 2016 sweeping chalk grassland at Coney Banks, Chatham, West Kent by H. Kenward. The bug is easily separated from its congener *Sciocoris cursitans* (Fabricius) by the former having pedunculate eyes.

## 271D Psallus pardalis Seidenstücker (Miridae)

This capsid bug was first taken in Britain beating a Turkey Oak in Windsor, Berkshire on 16 June 2016 by M. G. Telfer. The bug can be separated from its oak-dwelling congeners by examination of the aedeagus.

## 130H Oxycarenus modestus (Fallén) (Lygaeidae)

This seedbug was first taken in Britain beating alders in Hyde Park, London, Middlesex on 29 June 2017 by J. Denton. Nymphs and an adult were reported in the following month. The trees supporting the bug were reported as heavily fruiting and growing remote from water in open, sunny positions. The bulbous, apically expanded clypeus distinguishes this bug as belonging to the subfamily Oxycareninae, among the other British members of which it is distinct in host plant association, shape and colouring.

## 212A Amphiareus constrictus (Stål) (Anthocoridae)

Two adults this species were found in a garden at Blackheath, London (West Kent) by A. A. Allen on 30 September 1955 among dead grass and vegetable debris. There have been no further records. The bug was mentioned, without number, in Southwood & Leston (1959), but was not included in the British Isles list of Ryan (2012 & 2013).

## **Annotated bibliography**

## 299C Dicyphus tamaninii Wagner (Miridae)

Telfer (2015). Record for 23 August 2013 by M. G. Telfer, swept from vegetation on disturbed ground in Crystal Palace, London (West Kent). Record for 3 September 2013, swept from great willowherb, *Epilobium hirsutum* L., on derelict land at Silverton Quays, London (South Essex). Record for 13 May 2008 on vegetation on mound of spoil at Battersea Power Station, London (Surrey) by P. Kirby. Record for 18 August 2012 at Dulwich, Surrey. *D. escalerae* and *D. tamaninii* are very similar, but can be separated by the form of the left clasper.

### 203B *Orius horvathi* (Reuter) (Anthocoridae)

Bantock (2015). Beaten from Austrian Pine, *Pinus nigra*, by P. Kirby at Westwood, Peterborough, (VC32) on 10.vii.2014 and 25.vii.2014. Males are most easily identified with reference to the paramere.

## 180A *Nabis capsiformis* Germar (Nabidae)

Bantock (2015). Taken in a moth trap by D. Appleton in Porthgwarra, Cornwall (VC1) on 21.xi.14. The bug is unusual for the genus in having forewings that extend well beyond the end of the abdomen. It has very long and slender mid and hind legs, there are three dark marks along the wing veins in the posterior half of the corium, and the rear margin of the pronotum is finely bordered.

### 271A Psallus anaemicus Seidenstücker (Miridae)

271B Psallus helenae Josifov (Miridae)

Bantock (2015). These species were beaten by P. Kirby from Turkey Oak, *Quercus cerris*, at Thorpe Park, Peterborough, Watsonian Northamptonshire on 16.vi.2014 and 28.vi.2014.

Ryan (2016c). Records for both species beaten from Turkey Oak in University Parks, Oxford, Oxfordshire on 20 June, 26 June, 12 July 2015. Also a singleton of *P. helenae* beaten from a Turkey Oak at The Chase, Broad Layings, Watsonian North Hampshire on 17 July. The females of both species are much paler than the males.

Flanagan (2016). P. anaemicus, Wanstead Flats, South Essex, 27 June 2015.

Telfer (2017) P. anaemicus taken beating a Turkey Oak in Windsor, Berkshire on 16 June 2016.

## 041A Mecidea lindbergi Wagner (Pentatomidae)

Bantock (2016). First found by P. Harris in a moth trap at Weymouth on 17.xii.15. Further records in December 2015 were taken at light in South Hampshire, South Devon and Dorset.

## 271C Psallus lucanicus Wagner (Miridae)

Ryan (2016c). Two females taken beating Turkey Oak on 26 June 2015, identified from photographs by Dr Bernard Nau. He had already taken a male of this species in Bedfordshire.

## 130G Spilostethus pandurus (Scopoli) (Lygaeidae)

Kaunang (2016a). Found in Ashford, East Kent, 30 July 2015.

Kannang (2016b). Found on the flower head of *Senecio jacobaea* at a brownfield site in Ashford, East Kent by Jovita Kaunang on 30 July 2015.

## 390A Adelphocoris quadripunctatus (Fabricius) (Miridae)

Lawrence, et al. (2017). First identified as British from a photograph taken by Christopher Lawrence on 18 July 2016 of an example on a flower head of *Lotus pedunculatus* beside a pond at Rhondda Cynon Taf, South Wales (VC41). Further specimens have been found in collections, one from the nearby village of Coedely taken 11 August 2015 and four from East Sussex and Surrey taken in the late 19<sup>th</sup> century. Several additional sites have since been found in VC41, in July, August and September, all in association with the above plant, except for one associated with *Digitalis purpurea*. The bug may be separated from the similar *Adelphocoris lineolatus* (Goeze) by the former having course, dark pubescence on the hemelytra and four blackish spots on the pronotum.

## 028B Sciocoris homalonotus Fieber (Pentatomidae)

Bantock & Kenward (2017). First taken in Britain on 7 June 2016 sweeping chalk grassland at Coney Banks, Chatham, West Kent by Harry Kenward. The bug is easily separated from *Sciocoris cursitans* (Fabricius) by the former having pedunculate eyes.

#### 271D *Psallus pardalis* Seidenstücker (Miridae)

Telfer (2017) First taken in Britain beating a Turkey Oak in Windsor, Berkshire on 16 June 2016 by Mark Telfer.

130H Oxycarenus modestus (Fallén) (Lygaeidae)

Denton (2018). First taken in Britain beating alders in Hyde Park, London, Middlesex on 29 June 2017 by J. Denton. Nymphs were reported in July 2017, and an adult on 2 July 2017. The trees supporting the bug were reported as heavily fruiting and growing remote from water in open, sunny positions. The bulbous, apically expanded clypeus distinguishes this bug as belonging to the subfamily Oxycareninae, among the other British members of which it is distinct in host plant association, shape and colouring.

212A Amphiareus constrictus (Stål) (Anthocoridae)

Allen (1956). Two adults (and some unidentified and nymphs) of *Lasiochilus sladeni* Distant (now going by the above name) found in a garden at Blackheath, London (West Kent) by A. A. Allen on 30 September 1955 among dead grass and vegetable debris.

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## ADDITIONS TO RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR BEDFORDSHIRE

#### R. P. RYAN

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The county list for Bedfordshire in Ryan (2014a & 2014b) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. I did not consider local publications, in particular the Bedfordshire Naturalist, and the present paper addresses this shortcoming, adding 103 new county records from the recent review of the Bedfordshire Heteroptera (Nau, 2015 & 2016), which are listed below.

#### ARADIDAE

Aneurus laevis (Fabricius)

#### **ACANTHOSOMATIDAE**

Cyphostethus tristriatus (Fabricius)

#### RHOPALIDAE

Rhopalus maculatus (Fieber)

#### LYGAEIDAE

Cymus glandicolor Hahn

Drymus latus Douglas & Scott

Gastrodes abietum Bergroth

Kleidocerys ericae (Horváth)

Lasiosomus enervis (Herrich-Schaeffer)

Megalonotus antennatus (Schilling)

Megalonotus chiragra (Fabricius)

Nysius huttoni F.B. White

Plinthisus brevipennis (Latreille)

Rhyparochromus pini (Linnaeus)

Scolopostethus grandis Horváth

Scolopostethus puberulus Horváth

Trapezonotus desertus Seidenstücker

Trapezonotus dispar Stål

#### **BERYTIDAE**

Berytinus minor (Herrich-Schaeffer)

### **PIESMATIDAE**

Parapiesma quadratum (Fieber)

#### **TINGIDAE**

Acalypta brunnea (Germar)

Acalypta carinata (Panzer)

Agramma laetum (Fallén)

Campylosteira verna (Fallén)

Catoplatus fabricii (Stål)

Dictyonota fuliginosa A. Costa

Physatocheila dumetorum (Herrich-Schaeffer)

#### REDUVIIDAE

Coranus subapterus (De Geer)

#### REDUVIIDAE (CONTINUED)

Empicoris culiciformis (De Geer)

Empicoris vagabundus (Linnaeus)

#### ANTHOCORIDAE

Anthocoris butleri Le Quesne Temnostethus gracilis Horváth

#### MICROPHYSIDAE

Loricula elegantula (Baerensprung)

Loricula exilis (Fallén)

Loricula pselaphiformis Curtis

#### **MIRIDAE**

Agnocoris reclairei (Wagner)

Alloeotomus gothicus (Fallén)

Amblytylus delicatus (Perris)

Apolygus spinolae (Meyer-Dür)

Blepharidopterus diaphanus (Kirschbaum)

Brachyarthrum limitatum Fieber

Bryocoris pteridis (Fallén)

Camptozygum aequale (Villers)

Campylomma verbasci (Meyer-Dür)

Chlamydatus pullus (Reuter)

Chlamydatus saltitans (Fallén)

Dichrooscytus gustavi Josifov

Dichrooscytus rufipennis (Fallén)

Dicyphus pallicornis (Fieber)

Hallodapus rufescens (Burmeister)

Heterocordylus genistae (Scopoli)

Heterocordylus tibialis (Hahn)

Lygocoris rugicollis (Fallén)

Lygus maritimus Wagner

Lygus pratensis (Linnaeus)

Macrolophus rubi Woodroffe

Megalocoleus tanaceti (Fallén)

Miridius quadrivirgatus (A. Costa)

Monosynamma sabulicola (Wagner)

Neolygus populi (Leston)

Orthocephalus coriaceus (Fabricius)

Orthocephalus saltator (Hahn)

Orthops basalis (A. Costa)

Orthops campestris (Linnaeus)

Orthops kalmii (Linnaeus)

Orthotylus adenocarpi (Perris)

*Orthotylus bilineatus* (Fallén)

Orthotylus flavinervis (Kirschbaum)

Orthotylus junipericola Linnavuori

Orthotylus tenellus (Fallén)

Orthotylus viridinervis (Kirschbaum)

Parapsallus vitellinus (Scholtz)

Phylus melanocephalus (Linnaeus)

Pilophorus cinnamopterus (Kirschbaum)

Pilophorus clavatus (Linnaeus)

Pilophorus perplexus Douglas & Scott

#### MIRIDAE (CONTINUED)

Platycranus bicolor (Douglas & Scott)

Plesiodema pinetella (Zetterstedt)

Polymerus palustris (Reuter)

*Polymerus unifasciatus* (Fabricius)

Psallus albicinctus (Kirschbaum)

Psallus ambiguus (Fallén)

Psallus anaemicus Seidenstucker

Psallus assimilis Stichel

Psallus confusus Rieger

Psallus flavellus Stichel

Psallus helenae Josifov

Psallus luridus Reuter

Psallus perrisi (Mulsant & Rey)

Psallus salicis (Kirschbaum)

Psallus variabilis (Fallén)

Psallus wagneri Ossiannilsson

Teratocoris antennatus (Boheman)

Teratocoris saundersi Douglas & Scott

*Tinicephalus hortulanus* (Meyer-Dür)

*Trigonotylus caelestialium* (Kirkaldy)

Trigonotylus ruficornis (Geoffroy)

Tytthus pubescens (Knight)

*Tytthus pygmaeus* (Zetterstedt)

#### CERATOCOMBIDAE

Ceratocombus coleoptratus (Zetterstedt)

#### **SALDIDAE**

Chartoscirta cocksii (Curtis)

Chartoscirta elegantula (Fallén)

Saldula pallipes (Fabricius)

## CORIXIDAE

Sigara scotti (Douglas & Scott)

Bernard has informed me that two species listed in the county distribution for Bedfordshire are now known to be erroneous, specifically *Nysius cymoides* (Spinola) (Lygaeidae) and *Pachycoleus waltli* Fieber (Dipsocoridae). These will be deleted from the distribution. I am most grateful to Bernard for his help with the Bedfordshire records.

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# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR NORTHUMBERLAND INTO VICE-COUNTY LISTS FOR VC67 AND VC68

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#### Introduction

The list of Hemiptera-Heteroptera for Northumberland in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. Ryan did not attempt to divide the county list into separate lists for the two constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing separate lists for Watsonian South Northumberland (VC67) and Watsonian North Northumberland (VC68).

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a, 2018b, 2018c & 2018d). The resulting vice-county lists include 245 records, compared with 153 for the original Northumberland list. The list for Northumberland as a whole has lengthened by 18, the increase arising from 40 species added to the list and 22 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The lists for the two vice-counties, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Northumberland are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking the records relate to the references from which they were derived, as indicated in Table 1.

#### The divided records

Aradidae		
Aradus depressus (Fabricius) [NEW]	-	VC68 (22)
A		
ACANTHOSOMATIDAE		
Acanthosoma haemorrhoidale (Linnaeus) [NEW]	VC67 (9)	-
Cyphostethus tristriatus (Fabricius)	VC67 (8)	VC68 (8)
Elasmostethus interstinctus (Linnaeus)	VC67 (9)	VC68 (9)
Elasmucha grisea (Linnaeus) [NEW]	VC67 (9)	-
Cydnidae		
Tritomegas bicolor (Linnaeus) [DELETED]	-	-
PENTATOMIDAE		
Chlorochroa juniperina (Linnaeus) [DELETED]	-	-
Dolycoris baccarum (Linnaeus)	VC67 (9)	VC68 (9)
Palomena prasina (Linnaeus)	VC67 (9)	VC68 (9)
Pentatoma rufipes (Linnaeus)	VC67 (9)	VC68 (9)
Picromerus bidens (Linnaeus) [DELETED]	-	-
Piezodorus lituratus (Fabricius)	VC67 (9)	VC68 (9)
Podops inunctus (Fabricius) [DELETED]	-	-
Zicrona caerulea (Linnaeus)	VC67 (9)	VC68 (9)
Coreidae		
Enoplops scapha (Fabricius) [DELETED]	-	-

Lygaeidae		
Aphanus rolandri (Linnaeus)	VC67 (15)	_
Chilacis typhae (Perris) [NEW]	VC67 (1)	VC68 (1)
Cymus melanocephalus Fieber [DELETED]	-	-
Drymus brunneus (R.F. Sahlberg)	-	VC68 (38)
Drymus ryeii Douglas & Scott [NEW]	-	VC68 (38)
Drymus sylvaticus (Fabricius)	-	VC68 (38)
Kleidocerys ericae (Horváth)	_	VC68 (2)
Lamproplax picea (Flor)	VC67 (15)	VC68 (2)
Peritrechus lundii (Gmelin)	-	VC68 (2)
Scolopostethus affinis (Schilling) [DELETED]	-	- VC(0 (22)
Scolopostethus thomsoni Reuter [NEW] Stygnocoris fuligineus (Geoffroy)	-	VC68 (32) VC68 (38)
Stygnocoris jungineus (Geomoy) Stygnocoris rusticus (Fallén)	- VC67 (22)	VC08 (38)
Stygnocoris sabulosus (Schilling)	-	VC68 (38)
Taphropeltus contractus (Herrich-Schaeffer) [DELETED]	_	-
rupinopenus communis (Herrien Genderter) [BEBETED]		
BERYTIDAE		
Berytinus signoreti (Fieber)	VC67 (15)	-
Gampsocoris punctipes (Germar) [NEW]	-	VC68 (1)
TINGIDAE		
Acalypta brunnea (Germar)	VC67 (15)	-
Acalypta carinata (Panzer)	VC67 (15)	- MG(0 (00)
Acalypta nigrina (Fallén) [NEW]	- VIC(7 (2)	VC68 (38)
Acalypta parvula (Fallén)	VC67 (2)	-
Campylosteira verna (Fallén) Derephysia foliacea (Fallén)	VC67 (2) VC67 (15)	-
Stephanitis rhododrendri Horváth [DELETED]	VC07 (13)	_
Tingis cardui (Linnaeus)	VC67 (3)	VC68 (38)
Twigis curum (Elimacus)	(3)	(20)
REDUVIIDAE		
Empicoris culiciformis (De Geer) [NEW]	-	VC68 (1)
Empicoris vagabundus (Linnaeus) [NEW]	VC67 (22)	VC68 (1)
NABIDAE		
Himacerus mirmicoides (O. Costa) [DELETED]	-	-
Nabis ericetorum Scholtz [DELETED]	-	- V(C(0) (0)
Nabis ferus (Linnaeus) Nabis flavomarginatus Scholtz [NEW]	- VIC67 (2)	VC68 (2)
Nabis limbatus Dahlbom	VC67 (3) VC67 (3)	VC68 (1) VC68 (38)
ivadis timbatus Danitotii	VC07 (3)	V C08 (38)
ANTHOCORIDAE		
Anthocoris limbatus Fieber [NEW]	VC67 (22)	_
Anthocoris nemoralis (Fabricius)	VC67 (27)	_
Anthocoris nemorum (Linnaeus)	VC67 (11)	VC68 (11)
Anthocoris sarothamni Douglas & Scott	VC67 (2)	VC68 (38)
Lyctocoris campestris (Fabricius)	-	VC68 (38)
Xylocoris galactinus (Fieber) [DELETED]	-	-
CIMICIDAE		
Cimex lectularius Linnaeus [DELETED]	-	-
Michoninginae		
MICROPHYSIDAE  Loricula distinguanda (Reuter) [NEW]	_	VC68 (22)
Loricula distinguenda (Reuter) [NEW]	-	v Cuo (22)

MICROPHYSIDAE (CONTINUED)		
Loricula elegantula (Baerensprung) [NEW]	VC67(1)	VC68 (1)
Loricula pselaphiformis Curtis	VC67 (24)	-
	` '	
MIRIDAE		
Adelphocoris lineolatus (Goeze)	VC67 (2)	-
Apolygus lucorum (Meyer-Dür)	VC67 (3)	VC68 (2)
Apolygus spinolae (Meyer-Dür) [NEW]	-	VC68 (38)
Asciodema obsoleta (Fieber)	VC67 (2)	VC68 (2)
Blepharidopterus angulatus (Fallén)	-	VC68 (38)
Bryocoris pteridis (Fallén)	VC67 (2)	VC68 (2)
Calocoris alpestris (Meyer-Dür)	VC67 (24)	-
Calocoris roseomaculatus (De Geer)	-	VC68 (2)
Capsodes gothicus (Linnaeus)	VC67 (15)	-
Capsus ater (Linnaeus)	VC67 (3)	VC68 (38)
Capsus wagneri (Remane)	VC67 (23)	-
Chlamydatus pullus (Reuter)	VC67 (15)	-
Chlamydatus saltitans (Fallén)	VC67 (2)	-
Closterotomus norwegicus (Gmelin)	-	VC68 (38)
Conostethus brevis Reuter	-	VC68 (25)
Cyllecoris histrionius (Linnaeus)	VC67 (2)	VC68 (2)
Cyrtorhinus caricis (Fallén)	VC67 (22)	-
Deraeocoris flavilinea (A. Costa) [NEW]	VC67 (13)	-
Dichrooscytus rufipennis (Fallén) [NEW]	VC67 (24)	-
Dicyphus annulatus (Wolff) [DELETED]	-	-
Dicyphus constrictus (Boheman) [NEW]	VC67 (22)	-
Dicyphus epilobii Reuter	VC67 (2)	VC68 (2)
Dicyphus errans (Wolff) [DELETED]	-	-
Dicyphus globulifer (Fallén)	VC67 (2)	VC68 (31)
Dicyphus pallicornis (Fieber)	-	VC68 (1)
Dicyphus stachydis J. Sahlberg [NEW]	VC67 (1)	VC68 (1)
Globiceps fulvicollis Jakovlev [DELETED]	-	-
Grypocoris stysi (Wagner)	VC67 (16)	VC68 (38)
Halticus apterus (Linnaeus) [NEW]	VC67 (22)	-
Harpocera thoracica (Fallén)	VC67 (15)	VC68 (2)
Heterocordylus genistae (Scopoli)	VC67 (22)	-
Heterocordylus tibialis (Hahn)	VC67 (2)	VC68 (38)
Leptopterna dolabrata (Linnaeus)	VC67 (3)	-
Leptopterna ferrugata (Fallén)	VC67 (3)	VC68 (38)
Liocoris tripustulatus (Fabricius)	VC67 (2)	VC68 (38)
Lopus decolor (Fallén) [NEW]	-	VC68 (1)
Lygocoris pabulinus (Linnaeus)	VC67 (2)	VC68 (38)
Lygocoris rugicollis (Fallén)	VC67 (24)	VC68 (38)
Lygus punctatus (Zetterstedt) [NEW]	VC67 (22)	VC68 (22)
Macrotylus paykullii (Fallén) [DELETED]	-	-
Malacocoris chlorizans (Panzer)	-	VC68 (2)
Mecomma ambulans (Fallén)	-	VC68 (38)
Mecomma dispar (Boheman)	VC67 (3)	VC68 (22)
Megalocoleus molliculus (Fallén)	-	VC68 (15)
Miris striatus (Linnaeus) [NEW]	VC67 (17)	VC68 (38)
Monalocoris filicis (Linnaeus)	-	VC68 (38)
Neolygus viridis (Fallén)	-	VC68 (35)
Notostira elongata (Geoffroy)	VC67 (15)	-
Orthotylus ericetorum (Fallén)	VC67 (3)	VC68 (2)
Orthotylus marginalis Reuter	-	VC68 (38)
		` /

MIRIDAE (CONTINUED)		
Orthotylus tenellus (Fallén) [NEW]	-	VC68 (38)
Pachytomella parallela (Meyer-Dür) [NEW]	VC67 (3)	VC68 (22)
Pantilius tunicatus (Fabricius)	VC67 (1)	VC68 (1)
Phoenicocoris obscurellus (Fallén)	VC67 (15)	-
Phylus coryli (Linnaeus)	-	VC68 (2)
Phylus melanocephalus (Linnaeus)	VC67 (24)	VC68 (2)
Phytocoris longipennis Flor [DELETED]	-	-
Phytocoris populi (Linnaeus)	VC67 (16)	-
Phytocoris reuteri Saunders	VC67 (2)	_
Phytocoris tiliae (Fabricius)	VC67 (15)	VC68 (1)
Phytocoris ulmi (Linnaeus)	VC67 (2)	-
Phytocoris varipes Boheman [DELETED]	-	_
Pinalitus cervinus (Herrich-Schaeffer)	VC67 (2)	VC68 (38)
Pinalitus viscicola (Puton) [NEW]	VC67 (22)	-
Pithanus maerkelii (Herrich-Schaeffer)	VC67 (3)	VC68 (38)
Plagiognathus arbustorum (Fabricius)	VC67 (3)	VC68 (38)
Plagiognathus chrysanthemi (Wolff)	-	VC68 (2)
Platycranus bicolor (Douglas & Scott) [NEW]	-	VC68 (2)
Plesiodema pinetella (Zetterstedt)	VC67 (24)	-
Polymerus nigrita (Fallén) [NEW]	-	VC68 (32)
Polymerus unifasciatus (Fabricius)	VC67 (2)	-
Psallus ambiguus (Fallén)	VC67 (24)	VC68 (38)
Psallus falleni Reuter	-	VC68 (38)
Psallus flavellus Stichel [NEW]	_	VC68 (38)
Psallus haematodes (Gmelin)	_	VC68 (38)
Psallus lepidus Fieber	VC67 (24)	VC68 (38)
Psallus varians (Herrich-Schaeffer)	VC67 (24)	VC68 (38)
Rhabdomiris striatellus (Fabricius)	-	VC68 (2)
Stenodema calcarata (Fallén)	VC67 (3)	VC68 (38)
Stenodema holsata (Fabricius)	VC67 (11)	VC68 (11)
Strongylocoris leucocephalus (Linnaeus)	VC67 (11) VC67 (2)	-
Teratocoris caricis Kirkaldy	VC67 (23)	_
Teratocoris saundersi Douglas & Scott [NEW]	VC67 (23)	_
Teratocoris viridis Douglas & Scott [NEW]	VC67 (3)	_
Tinicephalus hortulanus (Meyer-Dür) [NEW]	VC67 (1)	VC68 (1)
Trigonotylus ruficornis (Geoffroy) [NEW]	VC67 (1)	-
Tytthus pygmaeus (Zetterstedt) [DELETED]	V COT (3)	_
Tyutus pygmueus (Zetterstett) [DELETED]	_	_
DIPSOCORIDAE		
Cryptostemma alienum Herrich-Schaeffer	-	VC68 (2)
SALDIDAE		
Chartoscirta cincta (Herrich-Schaeffer)	VC67 (2)	
Macrosaldula scotica (Curtis)	VC67 (27)	VC68 (19)
Salda littoralis (Linnaeus)	VC67 (27) VC67 (19)	VC68 (19)
Salda morio Zetterstedt	VC67 (19) VC67 (26)	V C00 (19)
Salda muelleri (Gmelin) [NEW]	VC67 (20) VC67 (3)	-
		VC69 (21)
Saldula c-album (Fieber) Saldula orthochila (Fieber)	VC67 (3) VC67 (3)	VC68 (31)
	VC07 (3)	- VC68 (38)
Saldula saltatoria (Linnaeus)	-	v Cuo (36)
HYDROMETRIDAE		
Hydrometra stagnorum (Linnaeus) [DELETED]	-	-

VELIIDAE		
Microvelia reticulata (Burmeister)	VC67 (21)	_
Velia caprai Tamanini	VC67 (21)	VC68 (21)
Velia saulii Tamanini [NEW]	VC67 (36)	-
GERRIDAE		
Aquarius najas (De Geer) [DELETED]	_	_
Gerris costae (Herrich-Schaeffer)	VC67 (21)	VC68 (21)
Gerris lacustris (Linnaeus)	VC67 (21)	VC68 (21)
Gerris odontogaster (Zetterstedt)	VC67 (21)	VC68 (21)
Gerris thoracicus Schummel	VC67 (6)	VC68 (21)
Limnoporus rufoscutellatus (Latreille)	VC67 (29)	-
Nepidae		
	VC67 (21)	
Nepa cinerea Linnaeus	VC07 (21)	-
Naucoridae		
Ilyocoris cimicoides (Linnaeus)	VC67 (12)	-
APHELOCHEIRIDAE		
Aphelocheirus aestivalis (Fabricius) [NEW]	-	VC68 (37)
Notonectidae		
Notonecta glauca Linnaeus	VC67 (21)	VC68 (21)
Notonecta glauca Elimacus  Notonecta obliqua Thunberg [NEW]	VC67 (21) VC67 (22)	-
Notonecia obtiqua Thunberg [NEW]	VC07 (22)	-
PLEIDAE		
Plea minutissima Leach	VC67 (12)	-
CORIXIDAE		
Arctocorisa carinata (C.R. Sahlberg)	VC67 (22)	VC68 (21)
Arctocorisa germari (Fieber)	VC67 (21)	-
Callicorixa praeusta (Fieber)	VC67 (21)	VC68 (21)
Callicorixa wollastoni (Douglas & Scott)	VC67 (21)	VC68 (21)
Corixa dentipes Thomson [NEW]	VC67 (22)	-
Corixa panzeri Fieber	VC67 (2)	VC68 (21)
Corixa punctata (Illiger)	VC67 (21)	VC68 (21)
Cymatia bonsdorffii (C.R. Sahlberg)	VC67 (2)	-
Hesperocorixa castanea (Thomson) [NEW]	VC67 (7)	-
Hesperocorixa linnaei (Fieber)	VC67 (21)	VC68 (21)
Hesperocorixa sahlbergi (Fieber)	VC67 (21)	VC68 (21)
Paracorixa concinna (Fieber)	VC67 (21)	VC68 (21)
Sigara distincta (Fieber)	VC67 (21)	VC68 (21)
Sigara dorsalis (Leach)	VC67 (21)	VC68 (21)
Sigara falleni (Fieber)	VC67 (21)	VC68 (21)
Sigara fossarum (Leach)	VC67 (2)	VC68 (2)
Sigara lateralis (Leach)	VC67 (21)	VC68 (21)
Sigara limitata (Fieber)	VC67 (14)	-
Sigara nigrolineata (Fieber)	VC67 (21)	VC68 (21)
Sigara scotti (Douglas & Scott)	VC67 (21)	VC68 (21)
Sigara selecta (Fieber) [NEW]	VC67 (7)	VC68 (7)
Sigara semistriata (Fieber)	VC67 (2)	VC68 (21)
Sigara stagnalis (Leach)	VC67 (12)	-
Sigara venusta (Douglas & Scott)	VC67 (2)	-
	` '	

TABLE 1. The references relating to the numbers in the list of divided records.

(1)	Bagnall (1920)	(20)	Horsefield (1980)
(2)	Bold (1872)	(21)	Huxley (2003)
(3)	Cherrill & Sanderson (1994)	(22)	Kerslake (1998)
(4)	Coult (2004)	(23)	Kirby (1994)
(5)	Dunn (1981)	(24)	Murray (1926)
(6)	Eales (1970a)	(25)	Nau (1978)
(7)	Eales (1970b)	(26)	Scudder (1958)
(8)	Eales (2001a)	(27)	Sheppard (1978)
(9)	Eales (2001b)	(28)	Sheppard & Eyre (1983)
(10)	Eales (2002)	(29)	Sutcliffe (1962)
(11)	Eyre & Forrester (1984)	(30)	Thompson (1929)
(12)	Eyre et al. (2005)	(31)	Thompson (1930)
(13)	Flanagan (2016)	(32)	Thompson (1931)
(14)	Hammond (2010)	(33)	Thompson (1934)
(15)	Heslop Harrison (1916a)	(34)	Crisp (1963)
(16)	Heslop Harrison (1916b)	(35)	Woodroffe (1973)
(17)	Heslop Harrison (1930)	(36)	Brinkhurst (1959)
(18)	Heslop Harrison (1937)	(37)	Limbert & Slack (1939)
(19)	Heslop Harrison (1963)	(38)	Hardy (1870-1874)

During the research for this article a number of new records for other vice-counties were found, which are listed below.

Aradus depressus (Fabricius) (Aradidae) VC66 (28)

Picromerus bidens (Linnaeus) (Pentatomidae) VC66 (4)

Piezodorus lituratus (Fabricius) (Pentatomidae) VC66 (9)

Troilus luridus (Fabricius) (Pentatomidae) VC66 (10)

Gastrodes grossipes (De Geer) (Lygaeidae) VC66 (28)

Campylosteira verna (Fallén) (Tingidae) VC62 (20)

Empicoris culiciformis (De Geer) (Reduviidae) VC66 (28)

Acompocoris pygmaeus (Fallén) (Anthocoridae) VC66 (28)

Anthocoris limbatus Fieber (Anthocoridae) VC66 (28)

Orius majusculus (Reuter) (Anthocoridae) VC66 (33)

Loricula pselaphiformis Curtis (Microphysidae) VC66 (30)

Adelphocoris lineolatus (Goeze) (Miridae) VC66 (28)

Bryocoris pteridis (Fallén) (Miridae) VC66 (30)

Campyloneura virgula (Herrich-Schaeffer) (Miridae) VC66 (28)

Cyllecoris histrionius (Linnaeus) (Miridae) VC66 (28)

Dicyphus constrictus (Boheman) (Miridae) VC66 (28)

Dichrooscytus rufipennis (Fallén) (Miridae) VC66 (28)

Fieberocapsus flaveolus (Reuter) (Miridae) VC62 (20)

Macrotylus solitarius (Meyer-Dür) (Miridae) VC66 (28)

Miris striatus (Linnaeus) (Miridae) VC66 (28)

Neolygus viridis (Fallén) (Miridae) VC66 (28)

Notostira elongata (Geoffroy) (Miridae) VC66 (28)

Orthops basalis (A. Costa) (Miridae) VC66 (28)

Orthops campestris (Linnaeus) (Miridae) VC66 (28)

Orthotylus viridinervis (Kirschbaum) (Miridae) VC66 (28)

Psallus confusus Rieger (Miridae) VC66 (28)

Psallus flavellus Stichel (Miridae) VC66 (28)

Psallus variabilis (Fallén) (Miridae) VC66 (28)

Psallus wagneri Ossiannilsson (Miridae) VC66 (28)

Salda littoralis (Linnaeus) (Saldidae) VC66 (19)

Salda morio Zetterstedt (Saldidae) VC66 (19)

Saldula orthochila (Fieber) (Saldidae) VC65 (5)

Teloleuca pellucens (Fabricius) (Saldidae) VC65 (5)

Notonecta obliqua Thunberg (Notonectidae) VC66 (18)

Arctocorisa carinata (C.R. Sahlberg) (Corixidae) VC66 (31)

Corixa dentipes Thomson (Corixidae) VC66 (34)

Cymatia bonsdorffii (C.R. Sahlberg) (Corixidae) VC66 (34)

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# NEW VICE-COUNTY RECORDS OF HEMIPTERA-HETEROPTERA FROM A DATA SET PROVIDED BY JOHN CAMPBELL

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For over three decades, John Campbell was the county recorder for the Hemiptera-Heteroptera in modern administrative Oxfordshire (VC23 and VC22, with small parts of VC24 and VC32). When he chose to retire from the role in January 2013, he handed to me his vast dataset of 43,810 records. I have recently completed an analysis of these, and was pleased to find 19 unpublished records new to the county distribution (Ryan, 2014a & 2014b), which I list below.

Ceraleptus lividus Stein (Coreidae)

OXFORDSHIRE (VC23): 01 July 1997, SU532967, Grass Vetchling Field, Clifton Hampden.

Megalonotus antennatus (Schilling) (Lygaeidae)

BERKSHIRE (VC22): 05 June - 10 July 2003, SU445995, old pit, Tubney Wood, pitfall trap.

Megalonotus praetextatus (Herrich-Schaeffer) (Lygaeidae)

OXFORDSHIRE (VC23): 15 July 2008, SP559102, Oak Farm Field, Beckley.

Megalonotus sabulicola (Thomson) (Lygaeidae)

BERKSHIRE (VC22): 04 July - 25 August 2005, SU4496, East of East Downs, Frilford, pitfall trap.

Nysius ericae (Schilling) (Lygaeidae)

OXFORDSHIRE (VC23): 10 September 1986, SU735747, Henley Road Gravel Pit, Caversham.

Orius vicinus (Ribaut) (Anthocoridae)

OXFORDSHIRE (VC23): 15 May 1984, SP362095, Cogges Manor Farm.

Temnostethus pusillus (Herrich-Schaeffer) (Anthocoridae)

OXFORDSHIRE (VC23): 28 July 1985, SP333168, Wychwood Forest SSSI.

Chlamydatus pulicarius (Fallén) (Miridae)

BERKSHIRE (VC22): 25 September 2003, SU330935, Shellingford New Quarry, Stanford in the Vale.

Globiceps flavomaculatus (Fabricius) (Miridae)

BERKSHIRE (VC22): 1987, SP467012, Lashford Lane Bog, Wootton.

Globiceps fulvicollis Jakovlev (Miridae)

OXFORDSHIRE (VC23): 28 August 1987, SP254234, Kingham railway sidings.

Halticus saltator (Geoffroy) (Miridae)

OXFORDSHIRE (VC23): 05 July 1995, SP274073, Carterton School grassland.

Heterocordylus genistae (Scopoli) (Miridae)

BERKSHIRE (VC22): 08 July 1981, SU275857, Odstone Hill Lane, Berkshire Downs.

Lygus pratensis (Linnaeus) (Miridae)

OXFORDSHIRE (VC23): 13 August 2008, SP5608, Rectory Farm, Oxford.

Lygus wagneri Remane (Miridae)

BERKSHIRE (VC22): 11 October 2010, SU467978, Glebe Field, Marcham.

Megacoelum infusum (Herrich-Schaeffer) (Miridae)

NORTHAMPTONSHIRE (VC32): 16 August 1992, SP4741, Banbury.

Orthops campestris (Linnaeus) (Miridae)

OXFORDSHIRE (VC23): 02 August 1979, SP575128, Otmoor Rifle Range Reserve (Otmoor SSSI).

Psallus luridus Reuter (Miridae)

OXFORDSHIRE (VC23): 19 July 1994, SP244302, Grove Wood, Chastleton.

Salicarus roseri (Herrich-Schaeffer) (Miridae)

NORTHAMPTONSHIRE (VC32): 13 July 1988, SP4741, Banbury.

Saldula pallipes (Fabricius) (Saldidae)

BERKSHIRE (VC22): 11 August 1987, SU523975, Thrupp Gravel Pit, Abingdon.

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# THE 2017 HEMIPTERA-HETEROPTERA VICE-COUNTY RECORD ROUNDUP

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The new vice-county records published in 2017, in journals other than the *Hemipterist*, are listed below. In order that as many records as possible are available for the vice-county distribution and atlas to be published in Volume 6 of this journal, records from the March 2018 issue of the *British Journal of Entomology and Natural History* are also included.

Sciocoris homalonotus Fieber (Pentatomidae): West Kent (VC16) (Bantock & Kenward, 2017). New to the British Isles.

Troilus luridus (Fabricius) (Pentatomidae): South Wiltshire (VC8) (Ryan, 2018b).

Leptoglossus occidentalis Heidemann (Coreidae): Oxfordshire (VC23) (George, 2017).

Syromastus rhombeus (Linnaeus) (Coreidae): South Wiltshire (VC8) (Ryan, 2018b).

Corizus hyoscyami (Linnaeus) (Rhopalidae): South Wiltshire (VC8) (Ryan, 2018b).

Nysius cymoides (Spinola) (Lygaeidae): Antrim (VCH39) (Bantock, 2017).

Oxycarenus modestus (Fallén) (Lygaeidae): Middlesex (VC21) (Denton, 2018). New to the British Isles.

Orsillus depressus (Mulsant & Rey) (Lygaeidae): South Wiltshire (VC8) (Ryan, 2018b).

Anthocoris minki Dohrn (Anthocoridae): South-east Yorkshire (VC61) (Ryan, 2018a).

Adelphocoris quadripunctatus (Fabricius) (Miridae): Glamorgan (VC41), East Sussex (VC14) and Surrey (VC17) (Lawrence, et al., 2017). New to the British Isles.

Chlamydatus evanescens (Boheman) (Miridae): South Wiltshire (VC8) and West Sussex (VC13) (Ryan, 2018b).

Dichrooscytus gustavi Josifov (Miridae): South Wiltshire (VC8) (Ryan, 2018b).

Orthotylus caprai Wagner (Miridae): South Wiltshire (VC8) (Ryan, 2018b).

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Bantock, T. M. 2017. Exhibit. British Journal of Entomology and Natural History 30: 100.

Bantock, T. & Kenward, H. 2017. *Sciocoris homalonotus* (Heteroptera: Pentatomidae) — a species new to Britain. *British Journal of Entomology and Natural History* **30**: 27-29.

Denton, J. 2018. *Oxycarenus modestus* (Hemiptera: Lygaeidae) new to Britain from Middlesex. *British Journal of Entomology and Natural History* **31**: 37-38.

George, A. M. 2017. Exhibit. British Journal of Entomology and Natural History 30: 100.

Lawrence, C., Olds, L. T. & Bantock, T. 2017. *Adelphocoris quadripunctatus* (Heteroptera: Miridae) — a species new to Britain. *British Journal of Entomology and Natural History* **30**: 23-26.

Ryan, R. P. 2018a. *Anthocoris minki* Dohrn (Hemiptera: Anthocoridae) in South-east Yorkshire (VC61). *British Journal of Entomology and Natural History* **31**: 30.

Ryan, R. P. 2018b. Some interesting Hemiptera-Heteroptera from a cemetery in Salisbury, Wiltshire. *British Journal of Entomology and Natural History* **31**: 38-39.

# A SPECIAL INDEX FOR HET NEWS, NEWSLETTER OF THE UK HETEROPTERA RECORDING SCHEMES (THIRD SERIES)

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### Introduction

The following special index was compiled from the three issues of Het News (Third Series), numbered 21 to 23, which appeared in April 2014, April 2015 and April 2016. The index is 'special' in the sense that it deals only with the names of the bugs. No other aspects are indexed, and only British species are included. The nomenclature and ordering of species is the same as that used in Ryan (2014)

The format of the page numbering is the digital number of the issue, followed by the digital page number within the issue, separated by a hyphen. So, for example, page 5 of issue 22 is written 22-5. The index was generated automatically within Microsoft® Office Word 2007, using a concordance table which included the known synonyms for the species. All the newsletter issues were converted into a single Word document, divided into three sections, one for each of the issues. The AutoMark and Insert Index options were then used to generate the index.

Given this method of compilation, the index is prone to omission due to differences in spelling of species names in the newsletter issues. The index was therefore checked against the issues, and any missing entries were added manually. This checking was also done for the special index of Het News (Second Series) (Ryan, 2017b), which was generated in a similar manner, and the missing entries have been included here.

Portable document format (PDF) copies of the issues of the newsletter can be downloaded from the British Bugs website (http://www.britishbugs.org.uk/HetNews.html). I very much hope that this special index, in combination with those of the Heteroptera Study Group Newsletter (Ryan, 2017a) and Het News (Second Series) (Ryan, 2017b), will help to make the newsletters of the UK Heteroptera recording schemes more accessible to those interested in the British Hemiptera-Heteroptera.

# The special index

## ARADIDAE

Aneurus avenius (Dufour): 22-7.

Aradus depressus (Fabricius): 22-8; 23-13.

# ACANTHOSOMATIDAE

Cyphostethus tristriatus (Fabricius): 21-9.

## **CYDNIDAE**

Canthophorus impressus (Horváth): 2-6; 21-1; 21-4; 22-1; 22-4; 23-8.

Geotomus punctulatus (A.Costa): 23-8. Legnotus limbosus (Geoffroy): 22-10. Legnotus picipes (Fallén): 22-1; 22-4; 23-8. Sehirus luctuosus Mulsant & Rey: 23-13.

Tritomegas bicolor (Linnaeus): 7-11; 7-13; 23-8; 23-9.

Tritomegas sexmaculatus (Rambur): 21-1; 21-4; 22-1; 22-5; 23-8; 23-9.

# THYREOCORIDAE

Thyreocoris scarabaeoides (Linnaeus): 5-6; 5-7; 6-2; 7-11; 21-9; 23-13.

### **SCUTELLERIDAE**

Eurygaster testudinaria (Geoffroy): 22-8; 22-11.

Odontoscelis fuliginosa (Linnaeus): 22-5.

Odontoscelis lineola Rambur: 4-4.

## **PENTATOMIDAE**

Aelia acuminata (Linnaeus): 22-8; 23-10.

Carpocoris mediterraneus Tamanini: 21-5.

Carpocoris purpureipennis (De Geer): 21-5.

Dolycoris baccarum (Linnaeus): 2-7; 21-5; 22-8.

Dyroderes umbraculatus (Fabricius): 21-3; 23-1; 23-4.

Eurydema dominulus (Scopoli): 23-8.

Eurydema oleracea (Linnaeus): 22-5; 22-10; 23-10.

Eurydema ornata (Linnaeus): 6-15; 9-13; 23-1; 23-5; 23-8.

Mecidea lindbergi Wagner: 23-2; 23-3.

Neottiglossa pusilla (Gmelin): 14-12; 16-13; 22-8; 23-1; 23-4; 23-10.

Nezara viridula (Linnaeus): 22-1; 22-5; 23-8.

Peribalus strictus (Fabricius): 21-1; 21-5; 22-2; 23-8.

Podops inunctus (Fabricius): 22-1; 22-5; 23-12.

Rhacognathus punctatus (Linnaeus): 7-11; 22-10; 22-11; 22-12.

Rhaphigaster nebulosa (Poda): 12-10; 21-1; 21-5; 23-8.

Zicrona caerulea (Linnaeus): 23-10.

## **COREIDAE**

Arenocoris waltlii (Herrich-Schaeffer): 9-2; 22-1; 22-4.

Bathysolen nubilus (Fallén): 13-9.

Ceraleptus lividus Stein: 22-1; 22-4; 22-10.

Coreus marginatus (Linnaeus): 21-1; 21-4; 22-9; 22-10; 23-10; 23-12.

Coriomeris denticulatus (Scopoli): 6-5; 22-10; 23-10.

Enoplops scapha (Fabricius): 23-8.

Gonocerus acuteangulatus (Goeze): 13-9; 21-1; 21-4; 22-1; 22-4; 22-8; 22-10; 23-1; 23-4; 23-10.

Leptoglossus occidentalis Heidemann: 22-12; 23-3; 23-13.

Spathocera dalmanii (Schilling): 10-5; 10-6.

Syromastus rhombeus (Linnaeus): 5-7; 6-9; 9-3; 9-4.

## RHOPALIDAE

Corizus hyoscyami (Linnaeus): 9-13; 11-12; 11-14; 21-1; 21-5; 23-5; 23-10; 23-12.

Liorhyssus hyalinus (Fabricius): 21-1; 21-5.

Rhopalus parumpunctatus Schilling: 6-5.

Rhopalus subrufus (Gmelin): 16-13.

Stictopleurus abutilon (Rossi): 10-5; 22-8.

Stictopleurus punctatonervosus (Goeze): 10-5; 13-10; 22-8.

## **PYRRHOCORIDAE**

Pyrrhocoris apterus (Linnaeus): 19/20-12.

# STENOCEPHALIDAE

Dicranocephalus medius (Mulsant & Rey): 22-1; 22-5; 22-10.

## LYGAEIDAE

Aphanus rolandri (Linnaeus): 8-11.

Arocatus longiceps Stål: 21-5; 21-6; 23-1; 23-5; 23-7.

Chilacis typhae (Perris): 1-6; 23-11; 23-12.

Drymus pumilio Puton: 21-1; 21-6; 22-1; 22-6.

Emblethis griseus (Wolff): 23-8.

## LYGAEIDAE (CONTINUED)

Eremocoris fenestratus (Herrich-Schaeffer): 22-8; 23-1; 23-5; 23-6.

Heterogaster artemisiae Schilling: 13-11; 14-11; 15-13.

Heterogaster urticae (Fabricius): 21-9.

Ischnodemus sabuleti (Fallén): 4-6; 22-1; 22-5; 22-12; 23-13.

Lasiosomus enervis (Herrich-Schaeffer): 23-7.

Macrodema microptera (Curtis): 10-6.

Megalonotus antennatus (Schilling): 11-12; 22-6; 23-12.

Megalonotus chiragra (Fabricius): 21-6; 22-11.

Megalonotus dilatatus (Herrich-Schaeffer): 17/18-8; 21-6; 22-11.

Megalonotus emarginatus (Rey): 21-6.

Megalonotus praetextatus (Herrich-Schaeffer): 21-6.

Megalonotus sabulicola (Thomson): 21-1; 21-6.

Metopoplax ditomoides (A.Costa): 11-14; 13-10.

Nysius cymoides (Spinola): 2-4; 2-5.

Nysius ericae (Schilling): 2-4; 2-5; 4-7.

Nysius graminicola (Kolenati): 2-4; 2-5.

Nysius helveticus (Herrich-Schaeffer): 2-4.

Nysius huttoni F.B.White: 21-1; 21-6; 22-1; 22-5; 23-1; 23-5; 23-12.

*Nysius senecionis* (Schilling): 2-4; 2-5; 4-7; 23-5.

Nysius thymi (Wolff): 2-4; 2-5; 23-12.

Orsillus depressus (Mulsant & Rey): 11-14.

Ortholomus punctipennis (Herrich-Schaeffer): 22-1; 22-5.

Peritrechus geniculatus (Hahn): 23-10.

Peritrechus lundii (Gmelin): 22-11.

Peritrechus nubilus (Fallén): 5-6; 11-14; 23-1; 23-7.

Raglius alboacuminatus (Goeze): 4-8.

Rhyparochromus pini (Linnaeus): 11-12.

Rhyparochromus vulgaris (Schilling): 21-1; 21-6; 22-1; 22-6.

Scolopostethus pictus (Schilling): 22-6; 22-11; 23-1; 23-6; 23-7; 23-11.

Stygnocoris rusticus (Fallén): 9-15.

Taphropeltus contractus (Herrich-Schaeffer): 22-10.

Trapezonotus ullrichi (Fieber): 23-8.

# BERYTIDAE

Berytinus clavipes (Fabricius): 21-9.

Berytinus montivagus (Meyer-Dür): 23-5.

Berytinus signoreti (Fieber): 22-8.

Neides tipularius (Linnaeus): 23-12.

# **PIESMATIDAE**

Parapiesma quadratum (Fieber): 23-11.

## **TINGIDAE**

Acalypta parvula (Fallén): 23-5.

Acalypta platycheila (Fieber): 22-1; 22-6.

Corythucha ciliata (Say): 9-14; 10-2.

Lasiacantha capucina (Germar): 21-1; 21-8.

Physatocheila dumetorum (Herrich-Schaeffer): 23-12.

Stephanitis takeyai Drake & Maa: 21-1; 21-8.

Tingis reticulata Herrich-Schaeffer: 22-7.

# REDUVIIDAE

Coranus aethiops Jakovlev: 21-1; 21-2; 21-3.

Coranus subapterus (De Geer): 21-3; 23-11.

## REDUVIIDAE (CONTINUED)

Coranus woodroffei P.V.Putshkov: 21-3. Empicoris baerensprungi (Dohrn): 3-6; 4-10. Reduvius personatus (Linnaeus): 11-11.

## Nabidae

Himacerus boops (Schiødte): 22-7.

Himacerus mirmicoides (O.Costa): 17/18-26; 21-1; 21-7; 21-8.

*Nabis capsiformis* Germar: 22-3; 23-3. *Nabis limbatus* Dahlbom: 17/18-26.

## ANTHOCORIDAE

Anthocoris butleri Le Quesne: 21-8. Anthocoris limbatus Fieber: 21-9. Anthocoris simulans Reuter: 21-9; 22-12.

Cardiastethus fasciiventris (Garbiglietti): 14-8.

*Orius horvathi* (Reuter): 22-2. *Orius niger* (Wolff): 22-5.

## **CIMICIDAE**

Cimex columbarius Jenyns: 10-13.

## MICROPHYSIDAE

Loricula exilis (Fallén): 11-13; 17/18-25.

### **MIRIDAE**

Acetropis gimmerthalii (Flor): 21-9; 22-12.

Campyloneura virgula (Herrich-Schaeffer): 23-1.

Capsodes gothicus (Linnaeus): 21-1; 21-7.

Charagochilus gyllenhalii (Fallén): 22-11.

Chlamydatus evanescens (Boheman): 22-1; 22-6; 22-8; 22-9; 23-10; 23-12.

Chlamydatus pullus (Reuter): 23-5.

Chlamydatus wilkinsoni (Douglas & Scott): 22-11.

Closterotomus norwegicus (Gmelin): 2-7; 17/18-25; 19/20-8.

Closterotomus trivialis (A.Costa): 23-13.

Conostethus brevis Reuter: 22-12.

Conostethus griseus Douglas & Scott: 22-12.

Conostethus venustus (Fieber): 22-7; 23-5; 23-13.

Cyrtorhinus caricis (Fallén): 21-8; 22-9.

Deraeocoris flavilinea (A.Costa): 16-13; 21-1; 21-7; 23-12; 23-13.

Deraeocoris ruber (Linnaeus): 23-13. Dichrooscytus gustavi Josifov: 22-11.

Dicyphus annulatus (Wolff): 13-8; 22-11; 23-2.

Dicyphus constrictus (Boheman): 23-2.

*Dicyphus epilobii* Reuter: 23-2. *Dicyphus errans* (Wolff): 23-2.

Dicyphus escalerae Lindberg: 23-2; 23-4.

Dicyphus globulifer (Fallén): 23-2.

Dicyphus pallicornis (Fieber): 13-8; 23-2.

Dicyphus pallidus (Herrich-Schaeffer): 22-8; 22-9; 23-2.

Dicyphus stachydis J.Sahlberg: 23-2. Dicyphus tamaninii Wagner: 23-2; 23-4.

Dryophilocoris flavoquadrimaculatus (De Geer): 17/18-26.

Fieberocapsus flaveolus (Reuter): 19/20-7. Globiceps fulvicollis Jakovlev: 22-1; 22-6.

## MIRIDAE (CONTINUED)

Globiceps juniperi Reuter: 9-6.

Hallodapus montandoni Reuter: 11-13; 22-1; 22-6.

Hallodapus rufescens (Burmeister): 23-13.

Halticus apterus (Linnaeus): 22-11.

Hoplomachus thunbergii (Fallén): 22-1; 22-6.

Lopus decolor (Fallén): 21-9; 22-12.

Lygocoris rugicollis (Fallén): 22-11.

Lygus maritimus Wagner: 3-11; 22-5; 23-11.

Lygus pratensis (Linnaeus): 3-11; 23-5; 23-12.

*Lygus punctatus* (Zetterstedt): 3-11. *Lygus rugulipennis* Poppius: 3-11; 22-5.

Lygus wagneri Remane: 3-11.

Macrolophus pygmaeus (Rambur): 6-8; 21-9; 22-12; 23-2; 23-13.

Macrolophus rubi Woodroffe: 19/20-7; 21-9; 22-12; 23-2.

Macrotylus solitarius (Meyer-Dür): 21-1; 21-6.

Megacoelum beckeri (Fieber): 21-9; 22-12.

Megaloceroea recticornis (Geoffroy): 21-9; 22-12.

Megalocoleus tanaceti (Fallén): 22-11.

Miridius quadrivirgatus (A.Costa): 16-12; 22-10; 23-10.

Monosynamma sabulicola (Wagner): 21-1.

Neolygus contaminatus (Fallén): 17/18-25.

Notostira elongata (Geoffroy): 21-3; 23-11.

Notostira erratica (Linnaeus): 21-1; 21-3; 21-9; 23-10; 23-11.

Oncotylus viridiflavus (Goeze): 23-11. Orthops basalis (A.Costa): 11-13; 21-8.

Orthotylus adenocarpi (Perris): 17/18-26; 23-11.

Orthotylus caprai Wagner: 9-9.

Orthotylus junipericola Linnavuori: 21-1; 21-3.

*Orthotylus prasinus* (Fallén): 21-8. *Orthotylus rubidus* (Puton): 2-8.

Pachytomella parallela (Meyer-Dür): 22-1; 22-6; 23-11.

Phytocoris dimidiatus Kirschbaum: 21-8.

Pinalitus rubricatus (Fallén): 22-11.

Plagiognathus chrysanthemi (Wolff): 23-8.

Platycranus bicolor (Douglas & Scott): 21-8.

Psallus albicinctus (Kirschbaum): 21-8.

Psallus anaemicus Seidenstucker: 22-3; 23-7.

Psallus assimilis Stichel: 17/18-7; 22-11.

Psallus betuleti (Fallén): 17/18-21.

Psallus flavellus Stichel: 19/20-6.

Psallus haematodes (Gmelin): 22-12.

Psallus helenae Josifov: 22-3: 22-4.

Psallus lucanicus Wagner: 23-4.

Psallus montanus Josifov: 21-8.

Psallus perrisi (Mulsant & Rey): 17/18-7.

Psallus pseudoplatani Reichling: 22-11.

Psallus varians (Herrich-Schaeffer): 17/18-7.

Pseudoloxops coccineus (Meyer-Dür): 21-8.

Strongylocoris leucocephalus (Linnaeus): 23-11.

Teratocoris saundersi Douglas & Scott: 23-11.

Trigonotylus caelestialium (Kirkaldy): 7-15.

Tropidosteptes pacificus (Van Duzee): 19/20-6; 19/20-9; 21-1; 21-6.

Tupiocoris rhododendri (Dolling): 23-2; 23-11.

Tuponia mixticolor (A.Costa): 3-5.

## MIRIDAE (CONTINUED)

Tytthus pygmaeus (Zetterstedt): 11-14.

### DIPSOCORIDAE

Pachycoleus waltli Fieber: 9-5; 16-12; 23-12.

#### SAI DIDAF

Chartoscirta cincta (Herrich-Schaeffer): 23-11; 23-12.

Halosalda lateralis (Fallén): 21-9.

Salda littoralis (Linnaeus): 4-3; 19/20-8; 23-12.

Salda morio Zetterstedt: 23-7. Salda muelleri (Gmelin): 23-7. Saldula c-album (Fieber): 23-11.

Saldula opacula (Zetterstedt): 23-11; 23-12.

Saldula orthochila (Fieber): 22-9.

### **HYDROMETRIDAE**

Hydrometra gracilenta Horváth: 9-5.

# VELIIDAE

*Microvelia pygmaea* (Dufour): 22-12. *Microvelia reticulata* (Burmeister): 3-6.

## **GERRIDAE**

Aquarius najas (De Geer): 22-12.

Aquarius paludum (Fabricius): 15-12; 22-7; 22-11; 22-12.

*Gerris lacustris* (Linnaeus): 11-16. *Gerris lateralis* Schummel: 22-6.

Limnoporus rufoscutellatus (Latreille): 21-9; 22-12; 23-13.

## **NEPIDAE**

Ranatra linearis (Linnaeus): 6-7; 23-11; 23-12.

# NAUCORIDAE

*Ilyocoris cimicoides* (Linnaeus): 6-7. *Naucoris maculatus* Fabricius: 5-8.

## **APHELOCHEIRIDAE**

Aphelocheirus aestivalis (Fabricius): 19/20-12.

# NOTONECTIDAE

Notonecta glauca Linnaeus: 7-1. Notonecta maculata Fabricius: 23-12.

## **CORIXIDAE**

Arctocorisa germari (Fieber): 17/18-22.

Callicorixa praeusta (Fieber): 1-5; 22-9.

Corixa panzeri Fieber: 21-9.

Glaenocorisa cavifrons (Thomson): 3-8; 7-17.

Glaenocorisa propinqua (Fieber): 3-8.

Hesperocorixa castanea (Thomson): 11-13.

*Hesperocorixa sahlbergi* (Fieber): 22-9. *Micronecta minutissima* (Linnaeus): 3-6.

Micronecta poweri (Douglas & Scott): 1-4.

Micronecta scholtzi (Fieber): 12-18.

## CORIXIDAE (CONTINUED)

Paracorixa concinna (Fieber): 11-13.

Sigara distincta (Fieber): 9-11.

Sigara dorsalis (Leach): 7-1; 22-9.

Sigara falleni (Fieber): 22-11.

Sigara fossarum (Leach): 5-8.

Sigara iactans Jansson: 22-11; 22-12.

Sigara lateralis (Leach): 22-9.

Sigara limitata (Fieber): 22-9.

Sigara nigrolineata (Fieber): 9-11; 22-9.

Sigara scotti (Douglas & Scott): 19/20-8.

Sigara venusta (Douglas & Scott): 22-12.

### References

Ryan, R. P. 2014. A list of the species of Hemiptera-Heteroptera recorded in the British Isles. *Hemipterist* 1: 2-14.

Ryan, R. P. 2017a. A special index for the Heteroptera Study Group Newsletter. *Hemipterist* 4: 1-14.

Ryan, R. P. 2017b. A special index for Het News, newsletter of the UK Heteroptera Recording Schemes (Second Series). *Hemipterist* **4**: 67-80.

# TWO NEW VICE-COUNTY RECORDS OF HEMIPTERA-HETEROPTERA FROM NATIONAL TRUST SITES

## STUART WARRINGTON

National Trust, Westley Bottom, Bury St Edmunds. IP33 3WD Stuart.Warrington@nationaltrust.org.uk

I recently sent a set of records of Hemiptera-Heteroptera to Rob Ryan for checking against the county distribution (Ryan 2014a & 2014b), who returned two new vice-county records, which I list below.

Aradus depressus (Fabricius) (Aradidae)

NORTH ESSEX (VC19): 27/07/2017, TL526186, Hatfield Forest, Wall Wood (north), under bark of large log.

Aquarius paludum (Fabricius) (Gerridae)

NORTH SOMERSET (VC6): 02/09/2017, ST637267, North Cadbury Court Pond, netted from boat in the centre.

# References

Ryan, R. P. 2014a. The county distribution of the Hemiptera-Heteroptera of the British Isles, fourth edition. *Hemipterist* 1: 38-103.

Ryan, R. P. 2014b. An Atlas of the Hemiptera-Heteroptera of the British Isles. https://sites.google.com/site/BritishHetBugAtlas.

# SOME RECORDS OF HEMIPTERA-HETEROPTERA FROM SHROPSHIRE

## KEITH FOWLER

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I recently sent a spreadsheet of records to Rob Ryan for checking against the county distribution (Ryan 2014a & 2014b). These were found to include 121 new records for Shropshire (VC40), which are listed below.

## **A**RADIDAE

Aneurus avenius (Dufour): 01/08/2008, SJ558036, Stevenshill, Cound.

Aradus depressus (Fabricius): 1991, SJ5510, Attingham Park.

### LYGAEIDAE

Acompus rufipes (Wolff): 24/06/2016, SJ639130, Wellington, Dothill & Beanhill Valley.

*Chilacis typhae* (Perris): 30/07/1992, SJ493364, Whixall Moss. *Cymus claviculus* (Fallén): 01/07/1985, SJ542093, Attingham Park.

Cymus glandicolor Hahn: 08/08/1979, SJ4330, Sweat Mere.

Cymus melanocephalus Fieber: 17/07/1985, SO399838, Hopesay Hill.

Drymus pumilio Puton: 26/10/2016, SJ672048, Coalbrookdale, Dale Coppice.

Drymus sylvaticus (Fabricius): 21/09/1985, SJ540130, Haughmond Hill.

Eremocoris podagricus (Fabricius): 11/05/2016, SO754839, Severn Valley Country Park.

Ischnodemus sabuleti (Fallén): 01/07/1985, SJ542093, Attingham Park.

Lasiosomus enervis (Herrich-Schaeffer): 05/03/2016, SJ284281, Morda.

Megalonotus emarginatus (Rey): 14/05/2017, SJ252243, Nant Mawr Visitor Centre.

Nysius ericae (Schilling): 08/09/2010, SO355978, Bog Mine.

Nysius huttoni F.B. White: 19/07/2017, SJ653304, Ternhill Quarry.

Nysius senecionis (Schilling): 11/06/2007, SJ5536, Prees Heath.

Nysius thymi (Wolff): 01/08/1990, SO514743, Ludlow.

Orsillus depressus (Mulsant & Rey): 01/06/2012, SJ554126, Upton Magna.

Plinthisus brevipennis (Latreille): 01/07/1985, SO4293, The Long Mynd.

Scolopostethus affinis (Schilling): 18/06/1984, SO763770, Chamberline.

Scolopostethus grandis Horváth: 19/04/2017, SJ272230, Llynclys, Blackbridge Quarry.

Scolopostethus puberulus Horváth: 26/10/2016, SJ672048, Coalbrookdale, Dale Coppice.

Stygnocoris rusticus (Fallén): 1985, SJ314250, Montgomery Canal.

Taphropeltus contractus (Herrich-Schaeffer): 31/08/1999, SJ642094, Ercall LNR.

Trapezonotus arenarius (Linnaeus): 13/08/2011, SO740777, Wyre Forest, Longdon orchard.

Trapezonotus desertus Seidenstücker: 17/07/1990, SJ393199, Hopton Hill.

# BERYTIDAE

Berytinus crassipes (Herrich-Schaeffer): 1985, SJ314250, Montgomery Canal.

Berytinus minor (Herrich-Schaeffer): 1996, SJ268213, Llanymynech Heritage Area.

Berytinus signoreti (Fieber): 31/08/2016, SO754836, Severn Valley Country Park.

## **TINGIDAE**

Acalypta parvula (Fallén): 12/10/1988, SJ473343, Wem Moss.

Derephysia foliacea (Fallén): 21/07/1997, SO7177, Silligrove Farm.

Dictyonota strichnocera Fieber: 16/08/1985, SJ6607, Little Wenlock.

Kalama tricornis (Schrank): 1996, SJ268213, Llanymynech Heritage Area.

Physatocheila dumetorum (Herrich-Schaeffer): 29/07/1992, SJ480348, Bettisfield Moss.

Tingis cardui (Linnaeus): 16/08/1985, SJ6607, Little Wenlock.

# REDUVIIDAE

*Empicoris culiciformis* (De Geer): 1979, SJ4422, Fenemere. *Empicoris vagabundus* (Linnaeus): 1979, SJ4230, Crose Mere. *Reduvius personatus* (Linnaeus): 2002, SJ4912, Shrewsbury.

## Nabidae

Himacerus major (A. Costa): 29/07/1992, SJ481349, Bettisfield Moss.

Nabis ericetorum Scholtz: 08/06/1987, SJ4734, Wem Moss.

Nabis lineatus Dahlbom: Aug-1984, SO763765, Knowles Coppice.

## ANTHOCORIDAE

Anthocoris sarothamni Douglas & Scott: 01/07/1985, SO4195, Long Mynd.

Anthocoris simulans Reuter: 19/06/2017, SO669717, Neen Sollars, Neenshilltop.

Anthocoris visci Douglas: 10/07/1997, SO7277, Orchard near The Sturt.

Buchananiella continua (F.B. White): 08/04/2016, SJ642130, Wellington, Dothill & Beanhill Valley.

Cardiastethus fasciiventris (Garbiglietti): 10/03/2012, SJ646127, Wellington, Dothill & Beanhill Valley.

Orius laevigatus (Fieber): 14/08/2006, SO724900, Eardington Quarry.

Orius vicinus (Ribaut): 1996, SJ268213, Llanymynech Heritage Area.

Temnostethus gracilis Horváth: 1996, SJ268213, Llanymynech Heritage Area.

Temnostethus pusillus (Herrich-Schaeffer): 19/08/1988, SO726767, Wyre Forest, North of Lem Hill.

*Xylocoridea brevipennis* Reuter: 03/07/2015, SO7536877228, Wyre Forest, Longdon Wood.

Xylocoris cursitans (Fallén): 01/07/1985, SJ542093, Attingham Park.

Xylocoris galactinus (Fieber): 18/09/2016, SJ274250, Sweeney Fen.

## MICROPHYSIDAE

Loricula pselaphiformis Curtis: 1996, SO3485, Walcot Park.

## **MIRIDAE**

Adelphocoris lineolatus (Goeze): 21/09/1985, SJ540130, Haughmond Hill.

Alloeotomus gothicus (Fallén): 19/08/1988, SO710754, Wyre Forest, A4117 road firebreak.

Amblytylus nasutus (Kirschbaum): 14/08/2004, SO665947, Morville Hall.

Apolygus lucorum (Meyer-Dür): 1979, SJ4422, Fenemere.

Asciodema obsoleta (Fieber): 16/08/1985, SJ6607, Little Wenlock.

Atractotomus magnicornis (Fallén): Aug-1984, SO763770, Chamberline.

Atractotomus mali (Meyer-Dür): 08/07/2012, SJ466209, Merrington Green.

Atractotomus parvulus Reuter: 19/08/1988, SO710754, Wyre Forest, A4117 road firebreak.

Calocoris roseomaculatus (De Geer): 28/07/2007, SO702770, Malpass, Cleobury Wood.

Campylomma annulicorne (Signoret): 22/07/2017, SJ274200, Llwyn-y-groes.

Closterotomus fulvomaculatus (De Geer): 17/07/2012, SJ729042, Kemberton.

Compsidolon salicellum (Herrich-Schaeffer): 19/08/1988, SO710754, Wyre Forest, A4117 road firebreak.

Conostethus roseus (Fallén): 28/07/2007, SO702770, Malpass, Cleobury Wood.

Deraeocoris flavilinea (A. Costa): 02/06/2011, SJ645126, Wellington, Dothill & Beanhill Valley.

Dicyphus constrictus (Boheman): 01/07/1997, SO3483, Walcot Park.

Europiella artemisiae (Becker): 15/09/2011, SO770947, Wyken.

Fieberocapsus flaveolus (Reuter): 08/09/1992, SJ486353, Whixall Moss.

Globiceps juniperi Reuter: 08/06/1987, SJ4734, Wem Moss.

Hallodapus rufescens (Burmeister): 03/08/1988, SJ473343, Wem Moss.

Harpocera thoracica (Fallén): 08/08/1979, SJ4330, Sweat Mere.

Heterocordylus genistae (Scopoli): 01/07/1985, SO580975, Wenlock Edge, Blakeway Coppice.

Heterocordylus tibialis (Hahn): 01/07/1985, SO4195, Long Mynd.

Hoplomachus thunbergii (Fallén): 01/07/1985, SJ542093, Attingham Park.

## MIRIDAE (CONTINUED)

 ${\it Hypseloecus\ visci\ (Puton): 14/07/2017, SO685915, Underton.}$ 

Macrolophus rubi Woodroffe: 1995, SJ474345, Wem Moss.

Macrotylus solitarius (Meyer-Dür): 16/08/1985, SJ6607, Little Wenlock.

Megacoelum infusum (Herrich-Schaeffer): 31/08/2012, SJ606050, Leighton.

Megaloceroea recticornis (Geoffroy): 28/07/2007, SO702770, Malpass, Cleobury Wood.

Megalocoleus molliculus (Fallén): 27/08/1985, SO544771, Middleton near Ludlow.

Neolygus populi (Leston): 02/06/2011, SJ644126, Wellington, Dothill & Beanhill Valley.

Neolygus viridis (Fallén): 08/08/1979, SJ4330, Sweat Mere.

Oncotylus viridiflavus (Goeze): 08/09/2010, SJ3702, Snailbeach Mine.

Orthocephalus coriaceus (Fabricius): 04/08/2012, SO610998, Blakeway Hollow.

Orthocephalus saltator (Hahn): 20/08/1985, SO763765, Knowles Coppice.

Orthops kalmii (Linnaeus): 1996, SJ268213, Llanymynech Heritage Area.

Orthotylus bilineatus (Fallén): 16/08/2017, SO459939, Church Stretton, Coppice Leasowes.

Orthotylus concolor (Kirschbaum): 06/09/2007, SJ5536, Prees Heath.

Orthotylus flavinervis (Kirschbaum): 1979, SJ4230, Crose Mere.

Orthotylus flavosparsus (C.R. Sahlberg): 1989, SO514743, Ludlow.

Orthotylus nassatus (Fabricius): 01/07/1990, SO514743, Ludlow.

Orthotylus ochrotrichus Fieber: 16/08/1985, SJ2324, Pen-y-bont.

Orthotylus virescens (Douglas & Scott): 16/08/1985, SJ6607, Little Wenlock.

Orthotylus viridinervis (Kirschbaum): 01/07/1990, SJ4314, Preston Montford.

Phoenicocoris obscurellus (Fallén): 19/08/1988, SO710754, Wyre Forest, A4117 road firebreak.

Phytocoris reuteri Saunders: 22/08/2012, SO286820, Bicton.

Phytocoris varipes Boheman: 16/08/1985, SJ6607, Little Wenlock.

Pilophorus perplexus Douglas & Scott: Aug-1984, SO763765, Knowles Coppice.

Pinalitus cervinus (Herrich-Schaeffer): 16/08/1985, SJ6607, Little Wenlock.

Polymerus nigrita (Fallén): 29/07/1992, SJ481349, Bettisfield Moss.

Polymerus palustris (Reuter): 01/07/1989, SJ4314, Preston Montford.

Psallus betuleti (Fallén): 03/08/2013, SJ4314, Preston Montford FSC

Psallus falleni Reuter: 08/09/1992, SJ491355, Whixall Moss.

Psallus flavellus Stichel: 22/06/1993, SJ3023, Morton Pool.

Psallus haematodes (Gmelin): 08/08/1979, SJ4330, Sweat Mere.

Psallus lepidus Fieber: 08/08/1979, SJ4908, Bomere Pool.

Psallus mollis (Mulsant & Rey): 03/07/2015, SO7536877228, Wyre Forest, Longdon Wood.

Psallus perrisi (Mulsant & Rey): 22/06/1993, SJ3023, Morton Pool.

Psallus salicis (Kirschbaum): 14/08/2004, SO666944, Morville Hall.

Psallus variabilis (Fallén): 19/08/1988, SO726767, Wyre Forest, North of Lem Hill.

Psallus varians (Herrich-Schaeffer): 18/06/1984, SO763770, Chamberline.

Psallus wagneri Ossiannilsson: 01/07/1997, SO3483, Walcot Park.

Salicarus roseri (Herrich-Schaeffer): 25/06/2017, SJ307339, Gobowen.

Stenodema holsata (Fabricius): 18/06/1984, SO763765, Knowles Coppice.

Sthenarus rotermundi (Scholtz): 20/08/2016, SJ319375, Ifton Meadows.

Trigonotylus ruficornis (Geoffroy): 28/06/2010, SJ3702, Snailbeach Mine

Tytthus pygmaeus (Zetterstedt): 22/06/1993, SJ3023, Morton Pool.

## CERATOCOMBIDAE

Ceratocombus coleoptratus (Zetterstedt): 26/10/1988, SJ475344, Wem Moss.

## References

Ryan, R. P. 2014a. The county distribution of the Hemiptera-Heteroptera of the British Isles, fourth edition. *Hemipterist* 1: 38-103.

Ryan, R. P. 2014b. An Atlas of the Hemiptera-Heteroptera of the British Isles. https://sites.google.com/site/BritishHetBugAtlas.

# THE DIVISION OF RYAN'S LIST OF HEMIPTERA-HETEROPTERA FOR SCOTLAND INTO VICE-COUNTY LISTS FOR VC72 TO VC112

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### Introduction

The list of Hemiptera-Heteroptera for Scotland in Ryan (2014) was compiled from that of Massee (1955) with additional records from the national entomological literature published in the six decades between these two papers. I did not attempt to divide the Scottish list into separate lists for the 41 constituent vice-counties, which are the basis of modern recording. The present paper addresses this shortcoming, providing a list of vice-county records for each Scottish species.

The vice-county records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a, 2018b, 2018c & 2018d). In addition, I have changed or omitted some records as follows.

The record of Aradus corticalis (Linnaeus) (Aradidae) for VC88 (King, 1917) was changed to Aradus betuleti (Linnaeus) on the authority of Hancock (2000b), based upon his examination of the original specimens, thereby removing the former species from the list for Scotland. However, I have not altered the record of Capsus wagneri (Remane) (Miridae) for VC104 (Woodroffe, 1962), in spite of the comment by Dolling (1983) that it was erroneous, as no evidence is given in support of this statement. I have removed the early records of Teratocoris saundersi Douglas & Scott (Miridae) on account of the confusion over identity presented by the discovery of *Teratocoris caricis* Kirkaldy as British (Woodroffe, 1967b). Specimens of the latter were found standing over the former name in a collection. The former name was not included in the list of ambiguities in Ryan (2015) as the context for that article was the county distribution at that time, in which Scotland existed as a single geographical region. Both species were reported from Scotland by Woodroffe, and there were no grounds for deleting prior records of T. saundersi from the whole of the British Isles, since this was clearly a northern species. However, the ambiguity is relevant now that Scotland has been divided into its constituent vice-counties. The records for T. saundersi from Grimshaw (1930), McNeill (1963), Norman (1877) & Waterston (1939) have therefore been omitted. The sole record of Limnoporus rufoscutellatus (Latreille) (Gerridae) for Scotland (Norman, 1880a) has had to be omitted as the location is given only as "Pitlochry", which stands on a vice-county boundary. The old Scottish records for Megaloceroea recticornis (Geoffroy) (Miridae) have been regarded as erroneous, in accordance with Nau (2011).

The resulting lists include 2686 distinct vice-county records, compared with 286 records for the Scotland list. The list for Scotland as a whole has lengthened by four, the increase arising from 22 species added to the list and 18 deleted from it due to the known records being insufficiently precise to be allocated to a particular vice-county.

The vice-county records, which will appear in the next edition of the county distribution, are presented below. The species that are new to Ryan's list for Scotland are marked "[NEW]", and the deleted species are marked "[DELETED]". The numbers in brackets marking the records relate to the references from which they were derived, as indicated in Table 1. Unlike the sixteen previous divisions of county lists, the vice-county records have not been de-duplicated, and in many cases the existence of a species in a vice-county is supported by more than one record. There are a total of 3865 individual records in the lists below.

# The divided records

Aradus betulae (Linnaeus) (Aradidae)

VC86 (33, 9) VC88 (130, 33, 125, 73, 69, 9, 111) VC95 (67, 9) VC96 (131, 114, 174, 125, 67, 9, 157) VC97 (9) VC106 (9)

Aradus corticalis (Linnaeus) (Aradidae) [DELETED]

Aradus depressus (Fabricius) (Aradidae)

VC88 (33, 69) VC96 (131, 69)

Acanthosoma haemorrhoidale (Linnaeus) (Acanthosomatidae)

VC72 (64, 175) VC73 (175, 86) VC74 (175) VC75 (64, 175, 132, 38) VC76 (175) VC77 (175) VC79 (175) VC80 (175) VC81 (175) VC82 (175) VC83 (175) VC84 (175) VC85 (175, 68) VC86 (64, 175, 86) VC88 (64, 175) VC89 (175) VC92 (175) VC93 (175) VC96 (175, 67) VC97 (175) VC98 (175) VC99 (64, 175) VC100 (175, 86) VC101 (175, 86) VC104 (194, 175, 187, 210, 67, 38) VC112 (175)

Cyphostethus tristriatus (Fabricius) (Acanthosomatidae)

VC72 (173) VC82 (96) VC89 (96) VC92 (121) VC93 (121)

Elasmostethus interstinctus (Linnaeus) (Acanthosomatidae)

VC72 (142, 143, 145) VC73 (104) VC75 (30) VC81 (137) VC85 (22) VC88 (156, 134) VC92 (207, 210) VC95 (193, 167) VC104 (187, 210) VC106 (193, 157)

Elasmucha grisea (Linnaeus) (Acanthosomatidae)

VC72 (142, 143, 145) VC73 (104) VC81 (137) VC85 (22) VC88 (156, 134) VC92 (207, 210) VC95 (167) VC96 (157) VC104 (210) VC106 (157) VC107 (157)

Adomerus biguttatus (Linnaeus) (Cydnidae)

VC88 (134, 216)

Dolycoris baccarum (Linnaeus) (Pentatomidae)

VC81 (137, 45) VC85 (45) VC89 (134)

Palomena prasina (Linnaeus) (Pentatomidae)

VC95 (193) VC110 (38)

Pentatoma rufipes (Linnaeus) (Pentatomidae)

VC72 (107, 142, 145, 105) VC73 (104) VC81 (137) VC85 (22) VC86 (108) VC88 (156) VC89 (156, 134) VC91 (138) VC92 (206, 210) VC94 (141) VC95 (167, 141) VC96 (35) VC100 (181, 38) VC101 (204) VC103 (139) VC104 (195, 204, 6, 187, 80, 210) VC105 (190, 38, 171) VC106 (157) VC107 (210, 38, 157)

Picromerus bidens (Linnaeus) (Pentatomidae)

VC72 (142, 143, 145) VC73 (104) VC85 (22) VC88 (156) VC92 (123) VC93 (123) VC104 (211)

Piezodorus lituratus (Fabricius) (Pentatomidae)

VC72 (143, 153, 145) VC81 (137) VC82 (45) VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC95 (167, 192) VC98 (45)

Rhacognathus punctatus (Linnaeus) (Pentatomidae)

VC72 (92, 142, 143, 153, 145) VC73 (92) VC85 (92, 22) VC88 (92, 156, 134, 216) VC89 (134) VC97 (92, 188) VC104 (92, 211)

Zicrona caerulea (Linnaeus) (Pentatomidae)

VC72 (143, 145) VC73 (8) VC74 (98) VC79 (8) VC81 (8, 137) VC82 (8) VC83 (8) VC85 (8) VC86 (8, 55) VC87 (45) VC89 (8, 45) VC90 (8) VC96 (8) VC100 (38, 55)

Chilacis typhae (Perris) (Lygaeidae)

VC75 (103) VC76 (103)

Dicranocephalus agilis (Scopoli) (Stenocephalidae) [DELETED]

Acompus rufipes (Wolff) (Lygaeidae) [DELETED]

Cymus glandicolor Hahn (Lygaeidae)

VC73 (93, 104) VC82 (93) VC83 (93) VC85 (93) VC89 (93)

Drymus brunneus (R.F. Sahlberg) (Lygaeidae)

VC72 (143, 146) VC73 (104) VC85 (22) VC86 (108) VC88 (156, 135, 216) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC105 (190, 38) VC106 (157)

Drymus ryeii Douglas & Scott (Lygaeidae)

VC73 (103) VC88 (103)

Drymus sylvaticus (Fabricius) (Lygaeidae)

VC72 (147, 146) VC81 (137) VC88 (135) VC89 (135) VC95 (167) VC104 (187, 210) VC105 (38)

Eremocoris abietis (Linnaeus) (Lygaeidae)

VC92 (206, 210, 38) VC95 (199, 206) VC96 (199, 66, 67, 38) VC108 (209)

Eremocoris plebejus (Fallén) (Lygaeidae)

VC73 (106, 104) VC92 (207, 210) VC95 (167, 52, 229) VC96 (200, 114, 172, 67, 157) VC97 (52)

Gastrodes abietum Bergroth (Lygaeidae) VC81 (137) VC88 (135) VC89 (135) VC91 (1) VC95 (1, 169) Gastrodes grossipes (De Geer) (Lygaeidae) VC72 (142, 146) VC73 (104) VC81 (137) VC85 (22, 156) VC88 (156) VC89 (156) VC90 (156) VC91 (1) VC92 (1, 210) VC95 (167) VC96 (157) VC104 (187, 210) VC106 (157) Heterogaster urticae (Fabricius) (Lygaeidae) VC82 (94) Ischnocoris angustulus (Boheman) (Lygaeidae) [DELETED] Kleidocerys ericae (Horváth) (Lygaeidae) VC72 (153) VC82 (49) VC85 (22) VC86 (108) VC88 (156) VC92 (210) VC106 (157) Kleidocervs resedae (Panzer) (Lygaeidae) VC81 (137) VC92 (210) VC95 (167) Lamproplax picea (Flor) (Lygaeidae) VC72 (195, 89, 142, 146, 219, 232) VC88 (156) VC89 (112, 156) VC100 (195, 89) VC104 (195, 89, 187, 210, 38) Macrodema microptera (Curtis) (Lygaeidae) VC88 (156) VC92 (210) VC95 (167) VC105 (38) Megalonotus dilatatus (Herrich-Schaeffer) (Lygaeidae) VC88 (46) Nysius ericae (Schilling) (Lygaeidae) VC88 (156) VC89 (156) Nysius thymi (Wolff) (Lygaeidae) VC85 (22, 156) VC88 (156) VC92 (207, 210) VC96 (157) VC104 (194, 187, 210) VC107 (157) Peritrechus lundii (Gmelin) (Lygaeidae) VC81 (137) VC88 (136) VC95 (167) Scolopostethus affinis (Schilling) (Lygaeidae) VC72 (144, 146) VC81 (137) VC85 (22) VC88 (156) Scolopostethus decoratus (Hahn) (Lygaeidae) VC72 (144, 146) VC73 (104) VC81 (137) VC85 (22) VC86 (108) VC88 (156) VC89 (156) VC92 (210) VC96 (157) VC104 (187, 210, 38) VC106 (157) VC107 (157) VC110 (38, 179) Scolopostethus pictus (Schilling) (Lygaeidae) VC73 (27) Scolopostethus puberulus Horváth (Lygaeidae) [DELETED] Scolopostethus thomsoni Reuter (Lygaeidae) VC72 (143, 146, 38) VC81 (137) VC83 (38, 45) VC85 (22, 38) VC88 (156) VC89 (156) VC90 (156) VC96 (157) VC106 (38, 157) Stygnocoris fuligineus (Geoffroy) (Lygaeidae) VC72 (153) VC81 (137) VC95 (167) Stygnocoris rusticus (Fallén) (Lygaeidae) VC83 (28) VC85 (22) Stygnocoris sabulosus (Schilling) (Lygaeidae) VC72 (144, 146, 105) VC73 (104) VC81 (137) VC85 (22) VC86 (108) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (35) VC100 (21) VC104 (187, 210, 211) VC105 (190) VC106 (157) VC107 (157) VC110 (38) Taphropeltus contractus (Herrich-Schaeffer) (Lygaeidae) VC73 (103) VC81 (137) VC83 (45) Trapezonotus desertus Seidenstücker (Lygaeidae) VC73 (104) VC88 (156) VC96 (157) VC106 (157) VC107 (157) Berytinus minor (Herrich-Schaeffer) (Berytidae) VC72 (147, 146) VC88 (156) Berytinus signoreti (Fieber) (Berytidae) VC73 (29) VC82 (45) VC83 (45) VC91 (233) VC95 (168)

Gampsocoris punctipes (Germar) (Berytidae) VC72 (31) VC73 (31) VC74 (31) VC75 (31)

Parapiesma quadratum (Fieber) (Piesmatidae)

VC85 (22) VC89 (102, 134) VC91 (233) VC106 (209, 157)

Piesma maculatum (Laporte) (Piesmatidae) [NEW]

VC106 (157)

Acalypta brunnea (Germar) (Tingidae)

VC83 (38, 47) VC89 (156) VC95 (38, 167) VC105 (65) VC106 (157)

Acalypta carinata (Panzer) (Tingidae)

VC73 (104) VC80 (163) VC83 (45) VC88 (156) VC89 (156) VC105 (65)

Acalypta nigrina (Fallén) (Tingidae)

VC73 (104) VC85 (22) VC88 (23) VC92 (207, 210) VC95 (23, 233) VC96 (114, 157) VC104 (197, 187, 210) VC105 (88, 65) VC108 (209)

Acalypta parvula (Fallén) (Tingidae)

VC72 (143, 147, 146) VC83 (45) VC85 (22) VC89 (156) VC95 (167) VC104 (187, 210) VC110 (38, 48)

Derephysia foliacea (Fallén) (Tingidae)

VC72 (142, 146) VC85 (22) VC86 (108) VC88 (134)

Dictyla convergens (Herrich-Schaeffer) (Tingidae)

VC89 (134)

Dictyonota strichnocera Fieber (Tingidae)

VC95 (168, 233)

Kalama tricornis (Schrank) (Tingidae)

VC83 (28)

Stephanitis rhododrendri Horváth (Tingidae) [DELETED]

Tingis cardui (Linnaeus) (Tingidae)

VC72 (144, 146, 105) VC81 (137) VC85 (22, 156) VC88 (156, 134) VC89 (156) VC90 (83) VC92 (210) VC95 (167) VC96 (157) VC104 (187, 210) VC105 (190, 38) VC106 (157) VC107 (157) VC110 (38, 179)

Coranus subapterus (De Geer) (Reduviidae) [DELETED]

Empicoris culiciformis (De Geer) (Reduviidae)

VC83 (95, 186) VC88 (95) VC89 (95, 156)

Empicoris vagabundus (Linnaeus) (Reduviidae)

VC72 (142, 148) VC73 (104) VC88 (134) VC89 (156) VC95 (167) VC96 (157) VC106 (157)

Himacerus major (A. Costa) (Nabidae)

VC85 (68)

Himacerus mirmicoides (O. Costa) (Nabidae) [NEW]

VC73 (29) VC76 (41)

Nabis ericetorum Scholtz (Nabidae)

VC72 (147, 148) VC73 (104) VC87 (161) VC88 (156) VC92 (210) VC95 (167) VC96 (157) VC103 (139) VC104 (187, 210)

Nabis ferus (Linnaeus) (Nabidae)

VC72 (147) VC81 (137) VC85 (22) VC88 (134) VC92 (210) VC95 (167) VC97 (188) VC100 (38, 21) VC102 (99) VC104 (187, 210) VC110 (38)

Nabis flavomarginatus Scholtz (Nabidae)

VC72 (143, 148, 105) VC73 (104) VC77 (181) VC81 (137) VC85 (22, 156) VC86 (181) VC88 (156, 134) VC89 (156) VC92 (210, 138) VC96 (212, 157) VC99 (108) VC103 (139) VC104 (187, 210) VC105 (190) VC106 (157) VC110 (38)

Nabis limbatus Dahlbom (Nabidae)

VC72 (107, 153, 148) VC73 (104) VC81 (137) VC85 (22, 156) VC86 (181) VC88 (156, 134) VC89 (156) VC90 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC100 (38, 21) VC103 (139) VC104 (187, 210) VC105 (190, 171) VC106 (157) VC110 (38)

Nabis lineatus Dahlbom (Nabidae) [NEW]

VC88 (134)

Nabis rugosus (Linnaeus) (Nabidae)

VC72 (143, 148) VC73 (104) VC81 (137) VC88 (134) VC95 (193, 39, 167) VC104 (187, 210, 39, 38)

Acompocoris alpinus Reuter (Anthocoridae)

VC92 (210) VC95 (38, 167) VC96 (38) VC106 (157)

Acompocoris pygmaeus (Fallén) (Anthocoridae)

VC72 (144, 149) VC73 (104) VC85 (22) VC88 (156, 135) VC89 (156) VC90 (156) VC92 (210) VC95 (167) VC96 (157) VC104 (187, 210, 38) VC106 (157) VC107 (157)

Anthocoris confusus Reuter (Anthocoridae)

VC72 (144, 149, 105) VC73 (104) VC81 (137) VC85 (22, 156) VC86 (108, 84, 85) VC87 (181) VC88 (156) VC89 (156) VC92 (210) VC95 (193) VC99 (108) VC102 (99) VC104 (187, 210) VC107 (157)

Anthocoris gallarumulmi (De Geer) (Anthocoridae)

VC81 (137) VC88 (156) VC92 (210) VC106 (157)

Anthocoris nemoralis (Fabricius) (Anthocoridae)

VC72 (147, 149) VC81 (137) VC85 (22) VC88 (156, 135) VC89 (156) VC90 (156) VC92 (210) VC104 (194, 187, 210) VC105 (190) VC106 (157) VC107 (157)

Anthocoris nemorum (Linnaeus) (Anthocoridae)

VC72 (147, 149, 105) VC73 (104) VC77 (181) VC81 (137) VC83 (61) VC85 (22, 156) VC86 (108) VC87 (181, 161) VC88 (156, 135) VC89 (83, 156) VC90 (83, 156) VC92 (210) VC95 (167) VC96 (212, 157) VC99 (108) VC100 (181, 38, 21) VC101 (181) VC102 (99) VC103 (139) VC104 (109, 187, 210) VC105 (190, 171) VC106 (157) VC107 (157) VC110 (38)

Anthocoris pilosus (Jakovlev) (Anthocoridae)

VC110 (117, 38)

Anthocoris sarothamni Douglas & Scott (Anthocoridae)

VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC106 (157)

Elatophilus nigricornis (Zetterstedt) (Anthocoridae)

VC81 (137) VC88 (135, 226) VC89 (135) VC92 (210) VC95 (126, 167) VC96 (203) VC106 (157)

Lyctocoris campestris (Fabricius) (Anthocoridae)

VC72 (147, 149) VC78 (7) VC83 (45) VC89 (156) VC95 (167) VC104 (187, 210, 38)

Temnostethus gracilis Horváth (Anthocoridae)

VC72 (105) VC73 (104) VC75 (116) VC76 (116) VC85 (116) VC86 (108) VC88 (156) VC89 (156) VC92 (210) VC96 (157) VC99 (108) VC100 (116) VC104 (195, 187, 210) VC106 (157) VC110 (116, 37, 38)

Temnostethus pusillus (Herrich-Schaeffer) (Anthocoridae)

VC81 (137) VC85 (116, 37) VC96 (157) VC104 (195, 187, 210) VC110 (37, 38)

Tetraphleps bicuspis (Herrich-Schaeffer) (Anthocoridae)

VC72 (144, 149) VC81 (137) VC82 (45) VC83 (45) VC88 (156) VC92 (210) VC95 (167) VC106 (157)

Xylocoris cursitans (Fallén) (Anthocoridae)

VC80 (2) VC83 (91)

*Xylocoris formicetorum* (Boheman) (Anthocoridae)

VC88 (40) VC92 (40, 225) VC96 (203)

*Xylocoris galactinus* (Fieber) (Anthocoridae)

VC88 (63)

Cimex lectularius Linnaeus (Cimicidae)

VC72 (149) VC77 (71, 66) VC88 (66) VC95 (67)

Cimex pipistrelli Jenyns (Cimicidae) [NEW]

VC76 (66) VC88 (66)

Loricula distinguenda (Reuter) (Microphysidae)

VC72 (142, 149) VC88 (156) VC96 (200)

Loricula elegantula (Baerensprung) (Microphysidae)

VC83 (38, 233) VC88 (156) VC89 (156) VC92 (210, 38) VC96 (157) VC104 (210) VC106 (157) VC110 (38)

Loricula exilis (Fallén) (Microphysidae)

VC88 (136) VC92 (210) VC96 (38) VC104 (210, 38) VC106 (157) VC107 (210, 38)

Loricula pselaphiformis Curtis (Microphysidae)

VC72 (142, 153, 149, 105) VC83 (45) VC88 (156, 135, 216) VC89 (156) VC92 (210) VC95 (168)

VC96 (24, 157, 221) VC104 (187, 210) VC106 (157) VC110 (38)

Adelphocoris lineolatus (Goeze) (Miridae)

VC77 (38) VC81 (137) VC85 (22, 38) VC88 (135) VC90 (156)

Adelphocoris seticornis (Fabricius) (Miridae)

VC81 (97) VC89 (127, 97, 82)

Amblytylus brevicollis Fieber (Miridae)

VC72 (153, 151) VC89 (83) VC90 (83)

Apolygus lucorum (Meyer-Dür) (Miridae)

VC72 (147, 150) VC88 (156) VC96 (157) VC106 (157)

Apolygus spinolae (Meyer-Dür) (Miridae)

VC81 (137) VC92 (210) VC96 (221) VC106 (157)

Asciodema obsoleta (Fieber) (Miridae)

VC72 (142, 151) VC83 (228, 233) VC85 (22) VC86 (108) VC87 (181) VC88 (156, 135) VC89 (156) VC90 (156) VC92 (210) VC96 (157) VC99 (108) VC104 (187, 210, 38) VC106 (157) VC107 (157)

Atractotomus magnicornis (Fallén) (Miridae)

VC72 (142, 151, 105) VC73 (104) VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC96 (24) VC106 (157)

Atractotomus parvulus Reuter (Miridae)

VC89 (156) VC106 (158, 157)

Blepharidopterus angulatus (Fallén) (Miridae)

VC72 (147, 151) VC73 (104) VC81 (137) VC84 (14) VC85 (22, 156) VC86 (108) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC104 (187, 210) VC105 (190) VC106 (157) VC107 (157) VC108 (25)

Bothynotus pilosus (Boheman) (Miridae)

VC72 (143, 144, 151) VC85 (22, 45) VC88 (112, 156, 135) VC92 (206, 210) VC96 (203, 67, 157) VC99 (215)

Bryocoris pteridis (Fallén) (Miridae)

VC72 (142, 151) VC73 (104, 192) VC75 (223) VC81 (137) VC86 (108) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC99 (108) VC104 (109, 38) VC106 (157)

Calocoris alpestris (Meyer-Dür) (Miridae)

VC77 (3) VC79 (3) VC80 (3) VC81 (3)

Calocoris roseomaculatus (De Geer) (Miridae)

VC81 (137) VC85 (22) VC88 (156, 135) VC92 (210) VC95 (167) VC96 (157) VC104 (187, 210, 211) VC105 (190) VC106 (157) VC107 (157)

Camptozygum aequale (Villers) (Miridae)

VC72 (142, 150) VC85 (22) VC88 (156) VC92 (210) VC95 (167)

Campyloneura virgula (Herrich-Schaeffer) (Miridae)

VC73 (104) VC82 (45) VC104 (187, 210, 38) VC106 (157)

Capsus ater (Linnaeus) (Miridae)

VC72 (143, 151) VC81 (137) VC83 (61) VC85 (22, 156) VC86 (181) VC88 (156, 135, 216) VC89 (156) VC91 (138) VC92 (210) VC95 (167) VC96 (157) VC97 (188) VC99 (108) VC102 (99) VC104 (109, 187, 210) VC106 (157) VC107 (157)

Capsus wagneri (Remane) (Miridae)

VC72 (114, 113) VC104 (196)

Charagochilus gyllenhalii (Fallén) (Miridae)

VC72 (142, 150) VC81 (137) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC106 (157) VC107 (157)

Chlamydatus pulicarius (Fallén) (Miridae)

VC88 (112, 156) VC92 (210) VC96 (114, 157) VC106 (157)

Chlamydatus pullus (Reuter) (Miridae)

VC88 (156, 135, 216) VC89 (156) VC96 (157, 221) VC106 (157)

Chlamydatus saltitans (Fallén) (Miridae)

VC75 (223) VC88 (156) VC95 (168)

Chlamydatus wilkinsoni (Douglas & Scott) (Miridae)

VC73 (192) VC85 (68) VC88 (112, 156, 135, 136) VC89 (156) VC92 (210) VC95 (168) VC96 (157, 221) VC104 (194, 187, 210) VC105 (35, 190) VC106 (157) VC107 (157) VC108 (133)

Closterotomus fulvomaculatus (De Geer) (Miridae) [DELETED]

Closterotomus norwegicus (Gmelin) (Miridae)

VC72 (107, 144, 150) VC81 (137) VC83 (61) VC85 (22, 156) VC88 (156) VC89 (83, 156) VC90 (156) VC92 (210) VC95 (167) VC96 (157) VC100 (38, 21) VC102 (165) VC104 (109, 187, 210) VC105 (190, 171) VC106 (157) VC107 (157) VC110 (115, 38, 179) VC111 (38, 233) VC112 (38, 58)

Conostethus brevis Reuter (Miridae)

VC82 (154) VC85 (22) VC93 (154) VC95 (154, 168, 230, 233) VC96 (154) VC105 (154, 38) VC106 (154, 38, 157)

Conostethus griseus Douglas & Scott (Miridae)

VC72 (142, 151)

Cyllecoris histrionius (Linnaeus) (Miridae)

VC72 (144, 151) VC81 (137) VC88 (213, 135) VC89 (135) VC92 (210) VC95 (167)

Cyrtorhinus caricis (Fallén) (Miridae)

VC72 (107) VC73 (104) VC81 (137) VC82 (45) VC84 (14) VC85 (156) VC88 (156) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC102 (165) VC104 (187, 210, 38) VC107 (157) VC110 (38)

Deraeocoris lutescens (Schilling) (Miridae) [DELETED]

Deraeocoris scutellaris (Fabricius) (Miridae)

VC81 (137) VC105 (159, 53)

Dichrooscytus rufipennis (Fallén) (Miridae)

VC72 (144, 150) VC84 (14) VC85 (22) VC88 (156) VC92 (210) VC95 (167) VC96 (212) VC105 (35, 190, 38)

Dicyphus annulatus (Wolff) (Miridae)

VC81 (137) VC82 (45) VC85 (22) VC88 (156) VC90 (156)

Dicyphus constrictus (Boheman) (Miridae)

VC81 (137) VC82 (45)

Dicyphus epilobii Reuter (Miridae)

VC72 (147, 151) VC81 (137) VC82 (45) VC84 (14) VC85 (70) VC86 (108)

Dicyphus errans (Wolff) (Miridae)

VC104 (109, 38)

Dicyphus globulifer (Fallén) (Miridae)

VC72 (142, 151) VC81 (137) VC89 (156) VC95 (167) VC106 (157)

Dicyphus pallicornis (Fieber) (Miridae)

VC72 (147, 151, 105) VC73 (104, 192) VC81 (137) VC84 (14) VC86 (108) VC88 (156) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC104 (187, 210, 211) VC106 (157) VC110 (38)

Dicyphus stachydis J. Sahlberg (Miridae)

VC72 (144, 151, 105) VC81 (137) VC88 (156) VC89 (156) VC95 (168) VC106 (157)

Dryophilocoris flavoquadrimaculatus (De Geer) (Miridae)

VC72 (147, 151) VC86 (50)

Globiceps flavomaculatus (Fabricius) (Miridae) [DELETED]

Globiceps fulvicollis Jakovlev (Miridae)

VC92 (206, 210) VC95 (200, 206, 233) VC108 (209)

Globiceps juniperi Reuter (Miridae)

VC92 (206) VC95 (199, 200, 206)

Grypocoris stysi (Wagner) (Miridae)

VC72 (143, 150, 105) VC73 (104) VC81 (137) VC83 (61) VC86 (108) VC88 (156) VC89 (156) VC99 (108) VC106 (157)

Hallodapus rufescens (Burmeister) (Miridae)

VC85 (22) VC87 (49) VC89 (112, 156) VC92 (210) VC96 (157) VC110 (38)

Harpocera thoracica (Fallén) (Miridae)

VC72 (143, 151) VC88 (135) VC89 (135) VC95 (167) VC105 (190, 38)

Heterocordylus genistae (Scopoli) (Miridae)

VC85 (22)

Heterocordylus tibialis (Hahn) (Miridae)

VC72 (142, 151) VC81 (137) VC85 (22) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC106 (157)

Heterotoma planicornis (Pallas) (Miridae)

VC89 (83) VC90 (83)

Leptopterna dolabrata (Linnaeus) (Miridae)

VC72 (153, 150, 105) VC73 (104) VC81 (137) VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC96 (157) VC99 (108) VC102 (165) VC106 (38, 157) VC107 (157)

Leptopterna ferrugata (Fallén) (Miridae)

VC72 (147, 150, 105) VC85 (22) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (212, 157) VC99 (108) VC102 (99) VC104 (195, 109, 187, 210, 43) VC105 (190) VC106 (157) VC107 (157) VC110 (179) VC111 (233) VC112 (38, 233)

Liocoris tripustulatus (Fabricius) (Miridae)

VC72 (142, 151) VC73 (104) VC81 (137) VC85 (22, 156) VC88 (156) VC89 (156) VC96 (157) VC106 (157)

Lopus decolor (Fallén) (Miridae) [NEW]

VC72 (105) VC88 (156)

Lygocoris pabulinus (Linnaeus) (Miridae)

VC72 (144, 150, 105) VC73 (104) VC76 (181) VC77 (181) VC81 (137) VC83 (61) VC85 (22) VC86 (108) VC88 (156) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC100 (38, 21) VC104 (187, 210) VC106 (157) VC110 (38)

Lygocoris rugicollis (Fallén) (Miridae)

VC72 (153, 150) VC85 (22) VC86 (181, 108) VC88 (156) VC89 (156) VC92 (210) VC95 (167, 168) VC96 (203, 157) VC99 (108) VC100 (38, 223) VC104 (187, 210) VC105 (190) VC106 (157) VC110 (38)

Lygus maritimus Wagner (Miridae)

VC72 (107) VC85 (22) VC88 (156) VC90 (156) VC106 (157)

Lygus pratensis (Linnaeus) (Miridae) [NEW]

VC92 (207)

Lygus punctatus (Zetterstedt) (Miridae)

VC92 (207, 210) VC96 (200, 114, 157)

Lygus rugulipennis Poppius (Miridae)

VC72 (107) VC73 (104) VC81 (137) VC85 (22) VC86 (181, 108) VC88 (156) VC89 (156) VC90 (156) VC92 (210) VC96 (118) VC104 (194, 187, 210, 38) VC106 (157) VC110 (38)

Lygus wagneri Remane (Miridae) [NEW]

VC80 (163) VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC104 (194, 187, 210, 38) VC106 (157)

Macrotylus paykullii (Fallén) (Miridae) [NEW]

VC72 (142, 151)

Malacocoris chlorizans (Panzer) (Miridae)

VC72 (147, 151) VC81 (137) VC83 (233) VC88 (156, 135) VC89 (83, 156) VC95 (167)

Mecomma ambulans (Fallén) (Miridae)

VC72 (142, 151) VC73 (104) VC77 (181) VC81 (137) VC83 (61) VC85 (22, 156) VC86 (181, 108) VC88 (156, 135, 216) VC89 (156) VC90 (156) VC92 (210) VC95 (167) VC96 (203, 157) VC99 (108) VC100 (38, 21, 223) VC104 (109, 187, 210) VC105 (190) VC106 (157) VC109 (209) VC110 (115, 38, 179) VC111 (38, 233) VC112 (38, 233)

Mecomma dispar (Boheman) (Miridae)

VC72 (147, 151, 38) VC88 (156) VC89 (112, 156) VC92 (210) VC95 (195, 38, 233) VC96 (203, 38, 157) VC104 (195, 187, 210, 38)

Megaloceroea recticornis (Geoffroy) (Miridae) [DELETED]

Megalocoleus molliculus (Fallén) (Miridae)

VC88 (156, 135) VC90 (156)

Megalocoleus tanaceti (Fallén) (Miridae)

VC88 (156)

Miris striatus (Linnaeus) (Miridae)

VC81 (137) VC83 (45) VC85 (22) VC88 (135) VC95 (167)

Monalocoris filicis (Linnaeus) (Miridae)

VC72 (142, 151) VC73 (104) VC81 (137) VC85 (22, 156) VC86 (108) VC88 (213, 156) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC104 (109) VC106 (157)

Neolygus contaminatus (Fallén) (Miridae)

VC72 (147, 150) VC81 (137) VC85 (22, 156) VC86 (181) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (212, 167) VC96 (157) VC103 (139) VC104 (187, 210) VC105 (25, 190) VC106 (157) VC107 (157) VC108 (25) VC110 (38)

Neolygus viridis (Fallén) (Miridae)

VC72 (147, 150) VC83 (45) VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC95 (167) VC97 (35) VC104 (210) VC105 (190)

Notostira elongata (Geoffroy) (Miridae) [NEW]

VC83 (61)

Orthocephalus coriaceus (Fabricius) (Miridae)

VC88 (136) VC95 (167)

Orthocephalus saltator (Hahn) (Miridae)

VC88 (156, 135) VC95 (233) VC96 (157)

Orthonotus rufifrons (Fallén) (Miridae) [NEW]

VC72 (147, 151)

Orthops basalis (A. Costa) (Miridae)

VC85 (208, 156) VC88 (156) VC89 (156) VC90 (156) VC92 (207, 208, 210, 38) VC106 (157) VC109 (209)

Orthops campestris (Linnaeus) (Miridae)

VC85 (156) VC88 (156) VC89 (156) VC90 (156) VC92 (210) VC96 (157) VC104 (210, 38) VC106 (157) VC107 (157) VC110 (38)

Orthops kalmii (Linnaeus) (Miridae) [NEW]

VC106 (38)

Orthotylus adenocarpi (Perris) (Miridae)

VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC106 (157)

Orthotylus bilineatus (Fallén) (Miridae)

VC73 (192) VC88 (156, 135, 220) VC92 (210) VC95 (167) VC96 (157, 221) VC106 (157, 220)

Orthotylus concolor (Kirschbaum) (Miridae) [DELETED]

Orthotylus ericetorum (Fallén) (Miridae)

VC72 (144, 151, 105) VC73 (104) VC85 (22) VC86 (108) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC104 (187, 210) VC106 (157) VC107 (157) VC110 (38)

Orthotylus flavinervis (Kirschbaum) (Miridae)

VC88 (135) VC96 (157)

Orthotylus fuscescens (Kirschbaum) (Miridae)

VC88 (112, 156, 136) VC92 (210) VC95 (167, 231) VC96 (200, 54, 212, 67, 157) VC106 (157)

Orthotylus marginalis Reuter (Miridae)

VC85 (156) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (38) VC103 (139) VC104 (187, 210) VC105 (25) VC106 (157) VC107 (157) VC108 (25)

Orthotylus nassatus (Fabricius) (Miridae)

VC81 (137) VC95 (38)

Orthotylus tenellus (Fallén) (Miridae)

VC88 (135) VC89 (156) VC92 (210) VC95 (167) VC106 (157)

Orthotylus virens (Fallén) (Miridae) [NEW]

VC72 (235) VC79 (235)

Orthotylus virescens (Douglas & Scott) (Miridae)

VC72 (147, 151) VC85 (22) VC87 (181) VC88 (156) VC89 (156) VC90 (156) VC92 (210) VC96 (157) VC106 (157) VC107 (157)

Orthotylus viridinervis (Kirschbaum) (Miridae)

VC81 (137)

Pachytomella parallela (Meyer-Dür) (Miridae)

VC72 (107) VC77 (34) VC80 (36) VC85 (22, 156, 38) VC88 (112, 213, 156) VC89 (156) VC92 (210) VC96 (157) VC106 (157) VC108 (133)

Pantilius tunicatus (Fabricius) (Miridae)

VC95 (170)

Parapsallus vitellinus (Scholtz) (Miridae) [NEW]

VC89 (156)

Phoenicocoris obscurellus (Fallén) (Miridae)

VC85 (22) VC88 (156) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC106 (157)

Phylus coryli (Linnaeus) (Miridae)

VC81 (137) VC88 (156, 135) VC89 (156) VC95 (167) VC96 (157) VC106 (157)

Phylus melanocephalus (Linnaeus) (Miridae)

VC72 (144, 151) VC81 (137) VC83 (45) VC84 (14) VC88 (213, 156, 135) VC89 (156, 135) VC92 (210) VC95 (167) VC97 (35) VC106 (157)

Phytocoris dimidiatus Kirschbaum (Miridae)

VC83 (233) VC84 (14) VC96 (200)

Phytocoris longipennis Flor (Miridae)

VC72 (143, 150) VC81 (137) VC83 (233) VC86 (181) VC88 (156, 135) VC89 (156) VC90 (156) VC95 (233) VC96 (157) VC104 (187, 210)

Phytocoris pini Kirschbaum (Miridae)

VC72 (153, 150) VC84 (14) VC85 (22, 156) VC88 (156, 135) VC92 (210, 224) VC95 (128, 167) VC96 (128, 157) VC105 (35, 190, 38) VC106 (157)

Phytocoris populi (Linnaeus) (Miridae)

VC72 (153) VC83 (233) VC92 (210)

Phytocoris reuteri Saunders (Miridae)

VC72 (142, 150)

Phytocoris tiliae (Fabricius) (Miridae)

VC72 (144, 150, 105) VC73 (104) VC81 (137) VC85 (22) VC86 (108) VC88 (135) VC89 (156) VC95 (167) VC96 (35, 157)

Phytocoris ulmi (Linnaeus) (Miridae)

VC72 (144, 150) VC73 (104) VC82 (45) VC85 (45)

Phytocoris varipes Boheman (Miridae) [NEW]

VC73 (29) VC104 (210, 38)

Pilophorus cinnamopterus (Kirschbaum) (Miridae)

VC83 (122, 124)

Pilophorus clavatus (Linnaeus) (Miridae)

VC87 (45) VC88 (112, 156)

Pinalitus cervinus (Herrich-Schaeffer) (Miridae)

VC72 (147, 150) VC81 (137) VC85 (22) VC88 (156, 135) VC89 (83, 156) VC91 (233) VC92 (210) VC95 (167) VC100 (38) VC104 (194, 187, 210, 38) VC106 (157)

Pinalitus rubricatus (Fallén) (Miridae)

VC72 (147, 150) VC81 (137) VC85 (22) VC88 (156, 135) VC89 (156) VC96 (172, 24) VC104 (187, 210) VC106 (157)

Pithanus maerkelii (Herrich-Schaeffer) (Miridae)

VC72 (107, 144, 151) VC73 (104) VC81 (137) VC82 (45, 51) VC85 (22, 51) VC86 (181) VC88 (213, 156, 135) VC89 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC102 (165, 99) VC104 (109, 187, 210) VC105 (190) VC106 (157) VC107 (157) VC110 (38, 179) VC111 (38, 233) VC112 (38, 233)

Plagiognathus arbustorum (Fabricius) (Miridae)

VC72 (107, 142, 151, 105) VC73 (104) VC81 (137) VC83 (61) VC85 (22, 156) VC86 (108) VC87 (181) VC88 (213, 156, 135) VC89 (156) VC90 (156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC100 (38, 21) VC103 (139) VC104 (109) VC105 (190) VC106 (157) VC107 (157)

Plagiognathus chrysanthemi (Wolff) (Miridae)

VC72 (142, 151, 105) VC81 (137) VC85 (22, 156) VC86 (181) VC88 (156, 135) VC89 (156) VC90 (83, 156) VC92 (210) VC95 (167) VC96 (157) VC99 (108) VC100 (38, 21) VC104 (109, 187, 210) VC105 (190) VC106 (157) VC107 (157) VC110 (38, 179)

Plesiodema pinetella (Zetterstedt) (Miridae)

VC88 (156, 135, 226) VC92 (210) VC95 (167) VC106 (157)

Polymerus nigrita (Fallén) (Miridae)

VC89 (156) VC96 (157)

Polymerus palustris (Reuter) (Miridae) [DELETED]

Polymerus unifasciatus (Fabricius) (Miridae)

VC72 (142, 150) VC85 (22) VC88 (156) VC89 (112, 156) VC92 (210) VC96 (157) VC106 (157)

Psallus ambiguus (Fallén) (Miridae)

VC72 (144, 151) VC81 (137) VC85 (22) VC88 (156, 135) VC92 (210) VC95 (167) VC96 (157) VC105 (203, 35, 190) VC106 (157) VC108 (25)

Psallus confusus Rieger (Miridae)

VC88 (156) VC89 (156) VC106 (157)

Psallus falleni Reuter (Miridae)

VC72 (147, 151) VC88 (156, 135) VC89 (156) VC92 (210) VC95 (167) VC100 (38, 21) VC104 (187, 210) VC105 (25) VC106 (157) VC107 (157) VC108 (25)

Psallus flavellus Stichel (Miridae)

VC89 (156) VC95 (167) VC106 (157)

Psallus haematodes (Gmelin) (Miridae)

VC72 (143, 151) VC81 (137) VC85 (22, 156) VC88 (156, 135) VC89 (156) VC90 (156) VC92 (210) VC95 (167) VC96 (157, 221) VC100 (38, 21) VC104 (187, 210) VC105 (25, 190) VC106 (157) VC107 (157) VC108 (25) VC110 (38)

Psallus lepidus Fieber (Miridae)

VC81 (137) VC88 (135) VC89 (156) VC92 (210) VC95 (167) VC104 (187, 210) VC106 (157)

Psallus luridus Reuter (Miridae)

VC88 (156)

Psallus mollis (Mulsant & Rey) (Miridae)

VC92 (206, 210) VC106 (157)

Psallus perrisi (Mulsant & Rey) (Miridae)

VC88 (156) VC92 (207, 210) VC96 (131)

Psallus salicis (Kirschbaum) (Miridae)

VC72 (144, 151) VC81 (137) VC95 (167)

Psallus variabilis (Fallén) (Miridae)

VC88 (156) VC89 (156)

Psallus varians (Herrich-Schaeffer) (Miridae)

VC72 (147, 151) VC81 (137) VC88 (135) VC89 (156) VC92 (210) VC95 (167) VC96 (221) VC106 (157)

Psallus wagneri Ossiannilsson (Miridae)

VC92 (207, 210)

Rhabdomiris striatellus (Fabricius) (Miridae)

VC72 (147, 150) VC81 (137) VC88 (213, 135) VC89 (135) VC92 (210) VC95 (167) VC97 (188) VC105 (190, 38)

Stenodema calcarata (Fallén) (Miridae)

VC72 (107, 144, 150, 105) VC73 (104) VC81 (137) VC85 (22) VC88 (156) VC89 (156) VC90 (156) VC91 (138) VC92 (210) VC95 (167) VC96 (157) VC100 (21) VC102 (99) VC104 (187, 210) VC106 (157) VC107 (157) VC110 (38)

Stenodema holsata (Fabricius) (Miridae)

VC72 (107, 144, 150, 105) VC73 (104) VC81 (137) VC85 (22, 156) VC86 (108) VC88 (156, 135, 216) VC89 (156) VC90 (156) VC91 (138) VC92 (210) VC95 (167) VC96 (157, 221) VC99 (108) VC100 (181, 21) VC101 (181) VC102 (99) VC103 (139) VC104 (187, 210) VC105 (190) VC106 (157) VC107 (157) VC111 (38, 233)

Stenodema laevigata (Linnaeus) (Miridae) VC72 (144, 150, 105) VC73 (192) VC81 (137) VC88 (156, 135) VC95 (167) Stenotus binotatus (Fabricius) (Miridae) [NEW] VC74 (140) VC96 (140, 67, 157) VC98 (140) Strongylocoris leucocephalus (Linnaeus) (Miridae) VC75 (110) VC81 (137) VC88 (135) VC107 (157) Systellonotus triguttatus (Linnaeus) (Miridae) [NEW] VC85 (22) Teratocoris antennatus (Boheman) (Miridae) VC82 (45) VC97 (35) Teratocoris caricis Kirkaldy (Miridae) VC85 (112) VC88 (201, 112, 156) VC92 (210) VC95 (201, 202) VC96 (201, 202) Teratocoris saundersi Douglas & Scott (Miridae) VC80 (163) VC83 (201) VC85 (156) VC88 (156) VC89 (201, 156) VC92 (210) VC95 (202) VC96 (200, 201) VC99 (108) VC100 (201) VC104 (201, 187, 210) VC106 (157) VC107 (157) VC109 (209) VC110 (38) Teratocoris viridis Douglas & Scott (Miridae) VC72 (192) VC88 (112, 156, 192, 135, 217) VC92 (210, 192) VC95 (200, 202, 233) VC96 (203) VC106 (157) VC110 (38) VC111 (38, 233) Tinicephalus hortulanus (Meyer-Dür) (Miridae) VC84 (14) VC92 (210) Trigonotylus psammaecolor Reuter (Miridae) [NEW] VC85 (54, 22) VC95 (67) VC96 (66) Trigonotylus ruficornis (Geoffroy) (Miridae) [NEW] VC95 (227) VC96 (157) VC106 (157) VC107 (157) VC110 (179) Tytthus pygmaeus (Zetterstedt) (Miridae) [NEW] VC106 (157) Zygimus nigriceps (Fallén) (Miridae) VC92 (206, 210) VC95 (128, 191) VC96 (199, 128, 74) Ceratocombus coleoptratus (Zetterstedt) (Ceratocombidae) VC85 (32, 22) VC88 (136) VC95 (167) Cryptostemma alienum Herrich-Schaeffer (Dipsocoridae) VC72 (143, 149, 16, 192) VC73 (16) VC74 (16) VC83 (47) VC88 (156, 192) VC95 (167) VC96 (157) VC102 (99) VC104 (194, 187, 210) Pachycoleus waltli Fieber (Dipsocoridae) [NEW] VC80 (234) Chartoscirta cincta (Herrich-Schaeffer) (Saldidae) VC72 (16) VC73 (16) VC85 (22) VC88 (156, 136) VC89 (156) VC92 (210) VC95 (167) VC102 (166, 165) VC104 (210, 38) VC105 (210) VC108 (65) VC110 (38) Chartoscirta cocksii (Curtis) (Saldidae) VC72 (142, 148, 16) VC87 (45) VC96 (17) Chartoscirta elegantula (Fallén) (Saldidae) VC72 (198, 16) VC73 (65) VC76 (38) VC87 (47) VC96 (87) VC105 (198, 38) Chiloxanthus pilosus (Fallén) (Saldidae) VC72 (142, 148, 16, 162) Halosalda lateralis (Fallén) (Saldidae) VC82 (45) VC95 (17, 168, 233) VC107 (157) VC110 (10) Macrosaldula scotica (Curtis) (Saldidae) VC72 (17, 144, 148, 16) VC73 (16) VC74 (16) VC86 (108) VC88 (213, 156, 135) VC89 (156) VC92 (210) VC95 (17, 172, 167) VC96 (17, 212, 157) VC99 (181, 108) VC100 (38) VC102 (99) VC104 (194, 187, 210, 211) VC105 (35, 190) VC106 (157) VC108 (133) Salda littoralis (Linnaeus) (Saldidae)

(157) VC107 (157) VC110 (81, 60) VC111 (18, 233) VC112 (62, 18, 38, 233)

VC72 (107, 143, 148, 16) VC73 (16) VC80 (163) VC81 (137) VC88 (156, 135, 216) VC92 (210) VC95 (17, 167) VC96 (202, 17, 221) VC100 (223) VC102 (166, 165) VC105 (17, 190) VC106

Salda morio Zetterstedt (Saldidae)

VC75 (182) VC92 (210) VC96 (203, 157) VC98 (182) VC100 (182, 38) VC104 (195, 187, 210) VC110 (182, 38)

Salda muelleri (Gmelin) (Saldidae)

VC73 (160) VC75 (182) VC88 (182, 112, 156) VC92 (210) VC96 (182, 199, 202, 157) VC98 (182) VC100 (182, 38) VC105 (65)

Saldula arenicola (Scholtz) (Saldidae) [DELETED]

Saldula c-album (Fieber) (Saldidae)

VC72 (143, 148, 16) VC88 (156, 135) VC92 (210) VC95 (167) VC96 (181, 17, 157, 221) VC100 (38, 223) VC106 (157) VC107 (157)

Saldula fucicola (J. Sahlberg) (Saldidae)

VC85 (112, 164, 156, 38) VC88 (156, 155) VC99 (181, 38) VC111 (38, 233) VC112 (38, 233)

Saldula opacula (Zetterstedt) (Saldidae)

VC92 (90, 222) VC95 (178, 38, 167) VC96 (181, 38) VC107 (209, 90, 210, 38)

Saldula orthochila (Fieber) (Saldidae)

VC72 (107, 143, 148, 16) VC77 (181) VC85 (22) VC88 (156, 135) VC92 (210) VC95 (167) VC96 (203, 17, 157, 221) VC104 (187, 210, 38) VC106 (157) VC107 (157) VC110 (38) VC112 (38, 233)

Saldula pallipes (Fabricius) (Saldidae) [NEW]

VC72 (162) VC105 (38)

Saldula palustris (Douglas) (Saldidae) [NEW]

VC102 (166, 165) VC104 (187, 210, 38) VC105 (65) VC106 (157) VC107 (157) VC110 (38)

Saldula pilosella (Thomson) (Saldidae)

VC72 (107)

Saldula saltatoria (Linnaeus) (Saldidae)

VC72 (107, 143, 148, 16) VC73 (104, 16, 160) VC74 (16) VC80 (163) VC81 (137) VC85 (22, 156) VC86 (108) VC88 (213, 156, 135, 136, 216) VC89 (156) VC92 (210) VC95 (167) VC96 (181, 157, 59) VC97 (188) VC99 (181, 108) VC100 (38, 223) VC102 (166, 165, 99) VC104 (109, 187, 210, 211) VC105 (190) VC106 (157) VC107 (90, 157) VC110 (115, 38, 179, 48)

Teloleuca pellucens (Fabricius) (Saldidae)

VC83 (45) VC88 (213, 218) VC96 (199, 202, 203)

Hebrus ruficeps Thomson (Hebridae)

VC72 (16, 232) VC73 (101) VC74 (16, 101) VC78 (101) VC79 (101) VC80 (101) VC88 (134) VC89 (101, 156) VC102 (166, 165) VC106 (101)

Hydrometra stagnorum (Linnaeus) (Hydrometridae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC85 (44) VC87 (101, 44) VC88 (101) VC90 (45) VC95 (101, 167) VC100 (101) VC101 (101) VC103 (101)

Microvelia reticulata (Burmeister) (Veliidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC82 (101) VC83 (101) VC84 (57, 101) VC85 (101) VC86 (101) VC88 (101) VC90 (101) VC92 (101) VC95 (101) VC98 (101) VC100 (101) VC106 (101)

Velia caprai Tamanini (Veliidae)

VC72 (19, 101) VC73 (19, 104, 101) VC74 (101) VC75 (19, 101) VC76 (101) VC77 (19, 101) VC78 (101) VC79 (13, 101) VC80 (13, 19, 101) VC81 (20, 137, 101) VC82 (101) VC83 (19, 101) VC84 (101) VC85 (20, 19, 22, 101) VC86 (181, 101) VC87 (101) VC88 (20, 101, 156) VC89 (101, 156) VC90 (101) VC91 (19, 101) VC92 (19, 210, 101) VC93 (101) VC94 (13, 101) VC95 (20, 101) VC96 (181, 19, 11, 12, 101) VC97 (101) VC98 (101) VC99 (101) VC100 (19, 101) VC101 (101) VC102 (19, 101, 165) VC103 (20, 19, 101) VC104 (26, 187, 19, 210, 211, 101) VC105 (101) VC106 (19, 101) VC107 (101) VC108 (13, 101) VC109 (101) VC110 (101, 38, 179) VC111 (19, 101) VC112 (19, 120, 101, 38)

Velia saulii Tamanini (Veliidae)

VC72 (13, 19, 101) VC73 (19, 101) VC74 (101) VC77 (19, 101) VC79 (19, 101) VC80 (101) VC83 (19, 101) VC84 (101) VC85 (101) VC86 (108, 101, 38) VC87 (101) VC88 (101, 156) VC90 (101) VC94 (101) VC95 (20, 13, 176, 101, 38) VC96 (20, 129, 13, 101, 157) VC97 (101) VC98 (101) VC99 (108, 38) VC101 (101) VC102 (101) VC105 (210, 101, 38) VC106

(101, 157) VC107 (101) VC108 (101) VC109 (101) VC110 (101, 38) VC112 (101)

Aquarius najas (De Geer) (Gerridae)

VC72 (16, 173) VC73 (13, 101) VC74 (16, 101) VC75 (13)

Gerris costae (Herrich-Schaeffer) (Gerridae)

VC72 (144, 147, 148, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC77 (13, 101) VC80 (13) VC82 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC88 (213, 101, 156) VC89 (101) VC90 (101) VC91 (233) VC92 (210, 101) VC93 (101) VC94 (13, 101) VC95 (101) VC96 (12, 101, 157) VC97 (101) VC98 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (72, 139, 101) VC104 (26, 109, 187, 72, 210, 211, 101) VC105 (190, 101) VC106 (101) VC107 (101) VC108 (101) VC109 (13, 101) VC110 (76, 77, 72, 79, 101, 179) VC111 (101, 38, 233)

Gerris gibbifer Schummel (Gerridae)

VC72 (153, 16, 101) VC73 (16, 101) VC81 (137) VC88 (156) VC96 (12)

Gerris lacustris (Linnaeus) (Gerridae)

VC72 (144, 148, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC81 (101) VC82 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101, 233) VC96 (12, 101, 157) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (139, 101) VC104 (26, 72, 101) VC105 (190, 101) VC106 (101, 157) VC107 (101) VC108 (101)

Gerris lateralis Schummel (Gerridae)

VC72 (16, 101) VC73 (16, 101) VC74 (101) VC75 (101) VC77 (101) VC80 (163, 101) VC82 (101) VC83 (57, 101) VC85 (22, 101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC95 (101, 170) VC96 (12, 101, 157) VC99 (101) VC103 (72) VC104 (26, 72, 101) VC107 (210, 38) VC110 (101, 38) VC111 (101) VC112 (62, 101, 38)

Gerris odontogaster (Zetterstedt) (Gerridae)

VC72 (144, 148, 16, 101) VC73 (16, 160, 101) VC74 (16, 101) VC75 (101) VC77 (101) VC79 (101) VC80 (13, 101) VC82 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (13, 210, 101) VC93 (101) VC94 (101) VC95 (101, 168, 233) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC103 (101) VC104 (26, 109, 187, 72, 210, 101) VC105 (35, 190, 101, 38) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC109 (101) VC107 (101) VC108 (101) VC109 (101) VC109 (101) VC110 (72, 101, 38) VC111 (101)

Gerris thoracicus Schummel (Gerridae)

VC72 (16, 101) VC73 (101) VC74 (101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC83 (101) VC84 (101) VC85 (22, 101) VC88 (101, 156) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (38, 167) VC96 (101, 157) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (26, 187, 72, 101) VC105 (190, 101, 38) VC106 (101) VC107 (101) VC108 (101) VC110 (77, 72, 101, 38)

Limnoporus rufoscutellatus (Latreille) (Gerrridae) [DELETED]

Nepa cinerea Linnaeus (Nepidae)

VC72 (16, 101) VC73 (16, 101) VC74 (101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC82 (101) VC83 (45) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC91 (101) VC92 (210, 101) VC93 (101) VC95 (101, 167) VC96 (101) VC97 (101) VC98 (101, 45) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (187, 78, 210, 211, 101) VC106 (101) VC107 (101) VC109 (101) VC110 (101, 38) VC111 (184, 101, 38)

Ilyocoris cimicoides (Linnaeus) (Naucoridae) [DELETED]

Aphelocheirus aestivalis (Fabricius) (Aphelocheiridae)

VC73 (42, 101) VC74 (183, 101) VC75 (101) VC76 (42, 101) VC81 (137, 119, 101) VC87 (101) VC89 (101)

Notonecta glauca Linnaeus (Notonectidae)

VC72 (16, 101) VC73 (16, 160, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC82 (101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (109, 101) VC105 (101, 38) VC106 (101)

VC107 (101) VC109 (101) VC110 (76, 101, 38) VC111 (101, 38) VC112 (177)

# Notonecta obliqua Thunberg (Notonectidae)

VC72 (16) VC73 (101) VC74 (101) VC76 (101) VC88 (101) VC92 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (26, 187, 210, 101) VC105 (101) VC106 (101) VC107 (101) VC108 (101) VC110 (77, 101, 38, 179)

# Plea minutissima Leach (Pleidae)

VC73 (15, 100, 101, 56) VC74 (100, 101)

# Arctocorisa carinata (C.R. Sahlberg) (Corixidae)

VC72 (16) VC73 (16, 101) VC88 (101) VC90 (101) VC95 (101) VC96 (12, 101) VC100 (101) VC102 (101) VC104 (26, 101) VC105 (210, 101) VC106 (101) VC108 (101) VC109 (101) VC110 (77, 101, 38) VC111 (101) VC112 (101)

# Arctocorisa germari (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC81 (101) VC82 (101) VC83 (101) VC84 (101) VC85 (101, 38) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC95 (101, 38) VC96 (101) VC99 (101) VC100 (101) VC102 (101) VC104 (109, 187, 210, 101) VC106 (101) VC108 (101) VC109 (101) VC110 (101, 38) VC111 (101) VC112 (177, 62, 101, 38)

# Callicorixa praeusta (Fieber) (Corixidae)

VC72 (143, 152, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (109, 187, 210, 101) VC105 (101) VC106 (101) VC107 (101) VC109 (101) VC110 (101, 38) VC111 (101, 38) VC112 (62, 101, 38)

# Callicorixa wollastoni (Douglas & Scott) (Corixidae)

VC72 (153, 152, 16, 101) VC73 (16, 101) VC75 (101) VC77 (101) VC78 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (213, 101) VC89 (101) VC90 (101) VC91 (101) VC92 (210, 101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC100 (101, 38) VC101 (101) VC102 (101, 165) VC104 (26, 187, 210, 101) VC105 (190, 101) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC110 (77, 101, 38) VC111 (101) VC112 (62, 101, 38)

## Corixa dentipes Thomson (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC84 (189, 38) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC95 (101) VC96 (101, 38) VC97 (101) VC98 (101) VC99 (101) VC101 (101) VC110 (101, 38)

# Corixa iberica Jansson (Corixidae)

VC98 (101) VC100 (4, 101, 5) VC102 (101) VC103 (101) VC104 (101, 5) VC105 (101) VC107 (101) VC108 (101) VC110 (101, 5) VC111 (180, 101, 5) VC112 (180, 177, 101, 5)

# Corixa panzeri Fieber (Corixidae)

VC72 (101) VC73 (101) VC77 (101) VC82 (57, 101) VC83 (101) VC92 (101) VC93 (101) VC95 (101) VC100 (101) VC103 (101) VC104 (101) VC110 (101, 38) VC111 (38) VC112 (101)

# Corixa punctata (Illiger) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC80 (101) VC81 (137, 101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (4) VC99 (101) VC100 (101, 5) VC101 (101) VC102 (166, 165) VC104 (26) VC105 (190, 101) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC110 (76, 38) VC112 (62, 38)

# Cymatia bonsdorffii (C.R. Sahlberg) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC95 (101, 38) VC96 (101, 38, 157) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (109, 187, 210, 101) VC105 (101, 38) VC106 (101) VC108 (101) VC109 (101) VC110 (101, 38, 179)

Cymatia coleoptrata (Fabricius) (Corixidae)

VC103 (38) VC110 (38)

Glaenocorisa cavifrons (Thomson) (Corixidae)

VC102 (165)

Glaenocorisa propinqua (Fieber) (Corixidae) [DELETED]

Hesperocorixa castanea (Thomson) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (26, 75, 109, 187, 210, 101) VC105 (35, 190, 101) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC110 (75, 77, 101, 38, 179) VC111 (101) VC112 (101)

Hesperocorixa linnaei (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC82 (57, 101) VC83 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC92 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (101) VC106 (101) VC110 (101, 38)

Hesperocorixa sahlbergi (Fieber) (Corixidae)

VC72 (143, 152, 16, 101) VC73 (104, 16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC82 (101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (26, 101) VC105 (190, 101, 38) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC110 (101, 38) VC111 (101)

Micronecta minutissima (Linnaeus) (Corixidae)

VC110 (214)

Micronecta poweri (Douglas & Scott) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC79 (101) VC80 (101) VC85 (101) VC87 (101) VC88 (101) VC89 (101) VC92 (101) VC94 (101) VC95 (101) VC98 (101) VC99 (101) VC102 (166, 165) VC103 (101) VC104 (26, 187, 210, 101, 38) VC105 (101) VC107 (101) VC109 (101) VC110 (101, 38) VC111 (101)

Paracorixa concinna (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC81 (101) VC82 (101) VC83 (101) VC84 (101) VC85 (57, 101) VC87 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC102 (101) VC109 (101) VC110 (101, 38) VC111 (101)

Sigara distincta (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC81 (101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (101) VC86 (108, 101) VC87 (101) VC88 (101, 156) VC89 (101, 156) VC90 (101) VC91 (101) VC92 (210, 101) VC93 (101) VC94 (101) VC95 (101) VC96 (181, 12, 101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (26, 101) VC105 (101, 38) VC106 (101, 157) VC107 (101) VC108 (101) VC109 (101) VC110 (77, 101, 38, 179) VC111 (101) VC112 (62, 101, 38)

Sigara dorsalis (Leach) (Corixidae)

VC72 (152, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (101) VC106 (101) VC107 (101) VC108 (101) VC109 (101) VC110 (101, 38) VC111 (101) VC112 (101, 38)

Sigara falleni (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC81 (101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (101) VC93 (101)

VC95 (101) VC96 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (101, 38) VC106 (101) VC107 (101) VC111 (101)

Sigara fossarum (Leach) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC82 (57, 101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC99 (101) VC92 (101) VC96 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC105 (101) VC106 (101) VC107 (101) VC109 (101) VC110 (101, 38)

Sigara lateralis (Leach) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC79 (101) VC80 (101) VC81 (137, 101) VC82 (101, 45) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC89 (101) VC90 (101) VC91 (101) VC92 (210, 101) VC93 (101) VC94 (101) VC95 (101) VC100 (101) VC101 (101, 38) VC102 (101) VC110 (101, 38) VC111 (101) VC112 (62, 101, 38)

Sigara limitata (Fieber) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC96 (12)

Sigara nigrolineata (Fieber) (Corixidae)

VC72 (143, 152, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC80 (101) VC81 (137, 101) VC82 (101) VC83 (101) VC84 (101) VC85 (22, 101) VC86 (101) VC87 (101) VC88 (213, 101) VC89 (101) VC90 (101) VC91 (101) VC92 (210, 101) VC93 (101) VC94 (101) VC95 (101) VC96 (157) VC102 (165) VC104 (26, 109, 187, 210, 211) VC105 (35, 190) VC110 (77) VC112 (62, 38)

Sigara scotti (Douglas & Scott) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101, 156) VC89 (101) VC90 (101) VC91 (101) VC92 (210, 101) VC93 (101) VC94 (101) VC95 (101) VC96 (57, 12, 101, 157) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (26, 109, 187, 210, 211, 101) VC105 (190, 101) VC106 (101, 157) VC107 (101) VC108 (101) VC109 (101) VC110 (76, 77, 101, 38, 179) VC111 (101) VC112 (62, 101, 38)

Sigara selecta (Fieber) (Corixidae) [DELETED]

Sigara semistriata (Fieber) (Corixidae)

VC72 (153, 152, 16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC76 (101) VC77 (101) VC78 (101) VC79 (101) VC80 (101) VC82 (101) VC83 (101) VC84 (101) VC85 (101) VC86 (101) VC87 (101) VC88 (101) VC89 (101) VC91 (101) VC92 (101) VC93 (101) VC95 (101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101) VC101 (101) VC102 (101) VC103 (101) VC104 (101) VC105 (101) VC106 (101) VC107 (101) VC108 (101, 38) VC109 (101) VC110 (101, 38, 179)

Sigara stagnalis (Leach) (Corixidae)

VC74 (16, 101)

Sigara venusta (Douglas & Scott) (Corixidae)

VC72 (16, 101) VC73 (16, 101) VC74 (16, 101) VC75 (101) VC77 (101) VC79 (101) VC83 (101) VC85 (101) VC87 (101) VC88 (101) VC89 (101) VC90 (101) VC92 (101) VC93 (101) VC94 (101) VC95 (172, 101) VC96 (101) VC97 (101) VC98 (101) VC99 (101) VC100 (101, 38) VC101 (101) VC102 (101, 165) VC103 (101) VC104 (26, 187, 210, 211, 101) VC105 (101) VC108 (101) VC109 (101) VC110 (76, 101) VC111 (101, 38) VC112 (101)

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TABLE 1. The references relating to the numbers in the list of divided records.

Aitkins (1936)		Examp (1012)
	(51)	Evans (1913)
Alexander (2000)	(52)	Evans (1915)
		Eversham (1987)
<b>O</b> , , , ,		Eyre et al. (2004)
•		Fergusson (1920)
	` '	Foster (2005)
		Gillespie (1985)
Bland & Lyszkowski (2005)	(58)	Grimshaw (1906)
Bland et al. (1999)	(59)	Grimshaw (1910)
Bratton (2012)	(60)	Grimshaw (1920)
Brinkhurst (1956)	(61)	Grimshaw (1930)
Brinkhurst (1957)	(62)	Hale Carpenter (1950)
Brinkhurst (1959)	(63)	Hall (1951)
Brock (1912)	(64)	Hancock (1992)
	(65)	Hancock (1993)
` '	` ′	Hancock (1997)
•		Hancock (1998)
		Hancock (2000a)
` '		Hancock (2000b)
		Hancock (2001)
·		Hancock (2002)
	` ′	Heslop Harrison (1940a)
* '		Harwood (1921)
•		Hawkins (2013)
·		Heslop Harrison (1937)
-		Heslop Harrison (1940b)
		Heslop Harrison (1941a)
• .		Heslop Harrison (1941b)
		Heslop Harrison (1943)
		Heslop Harrison (1947)
		Heslop Harrison (1950)
•		<u>-</u>
		Hill (1947) Hill (1952)
	` '	` '
		Hill (1965)
· · · · · · · · · · · · · · · · · · ·	` ,	Hill (1968)
		Hill (1973)
		Hodge (1992)
		Horsfield (1984)
•		Horsfield (1989a)
• '	` ′	Horsfield (1989b)
• '	` ′	Horsfield (2001)
	` '	Horsfield (2002a)
` '		Horsfield (2002b)
Evans (1897)		Horsfield (2003)
Evans (1900a)		Horsfield (2010a)
Evans (1900b)	(96)	Horsfield (2010b)
Evans (1901)	(97)	Horsfield (2015)
Evans (1912a)	(98)	Hudson Beare (1926)
Evans (1912b)	(99)	Hutchinson (1923)
Evans (1912c)	(100)	Huxley (1997)
	Bland et al. (1999) Bratton (2012) Brinkhurst (1956) Brinkhurst (1957) Brinkhurst (1959) Brock (1912) Brooke (2008) Brown (1940-44) Brown (1948) Brown (1950) Brown (1951) Brown (1954) Butler (1921) Campbell (1980) China (1935) China (1952) Claridge et al. (1968) Clifton (1984) Crossley (1974) Crowson & Crowson (1961) Crowson & Crowson (1963) Crowson et al. (1966) Crowson (1971) Crowson (1972) Crowson (1974) Day (1936) Day (1938) Day (1940) Dolling (1977) Dolling (1983) Dolling (2005) Donisthorpe (1922) Donisthorpe (1923) Doughty (1985) Evans & Grimshaw (1916) Evans (1900a) Evans (1900b) Evans (1912a) Evans (1912a) Evans (1912b)	Angus (2006a) (54) Angus (2006b) (55) Badmin (1970) (56) Blair (1931) (57) Bland & Lyszkowski (2005) (58) Bland et al. (1999) (59) Bratton (2012) (60) Brinkhurst (1956) (61) Brinkhurst (1957) (62) Brinkhurst (1959) (63) Brock (1912) (64) Brooke (2008) (65) Brown (1940-44) (66) Brown (1948) (67) Brown (1950) (68) Brown (1951) (69) Brown (1954) (70) Butler (1921) (71) Campbell (1980) (72) China (1935) (73) China (1952) (74) Claridge et al. (1968) (75) Clifton (1984) (76) Crowson & Crowson (1961) (78) Crowson et al. (1966) (80) Crowson (1971) (81) Crowson (1972) (82) Crowson (1974) (83) Day (1936) (84) Day (1938) (85) Day (1940) (86) Dolling (1977) (87) Dolling (1983) (91) Doughty (1985) (92) Evans (1900b) (96) Evans (1900b) (96) Evans (1901b) (97) Evans (1912a) (99) Evans (1912a) (99) Evans (1912a) (99) Evans (1912a) (99) Evans (1912b) (99)

# TABLE 1 CONTINUED.

(101)	Huxley (2003)	(151)	Murray (1939b)
(102)	Ing (1964)	(152)	Murray (1939c)
(103)	Judd (1998)	(153)	Murray (1940)
(104)	Kenward (1970)	(154)	Nau (1978a)
(105)	Kenward (1971a)	(155)	Nau (1991)
(106)	Kenward (1971b)	(156)	Nau (1991-1992)
(107)	Kenward (1973)	(157)	Nau (1993)
(108)	Kenward (1978)	(158)	Nau (1995)
(109)	Kevan (1941)	(159)	Nau (2005)
(110)	King (1913)	(160)	Nelson & Theaker (1982)
(111)	King (1917)	(161)	Nelson (1983/84)
(112)	Kirby & Lambert (1992)	(162)	Nelson (1980)
(113)	Kirby (1993)	(163)	Nelson (1982)
(114)	Kirby (1994)	(164)	Nelson (1983)
	Lack (1932)	(165)	Nelson (2013)
` ′	Le Quesne (1955)	(166)	Nelson (2014)
` ′	Le Quesne (1958)	(167)	Norman (1877)
(118)	Leston (1953)	(168)	Norman (1879)
(119)	Limbert & Slack (1939)	(169)	Norman (1880b)
(120)	Lindroth (1955)	(170)	Norman (1881)
(121)	Littlewood (2009)	(171)	O'Donoghue (1935)
(122)	Littlewood (2010a)	(172)	Pickard-Cambridge (1920)
(123)	Littlewood (2010b)	(173)	Pollitt & Ferguson (2011)
(124)	Littlewood (2011)	(174)	Porter (1989)
(125)	MacNulty (1971)	(175)	Ramsay (2014)
(126)	Massee (1945)	(176)	Richter (1953)
(127)	Massee (1960a)	(177)	Riddiford (2010)
(128)	Massee (1960b)	(178)	Ridpath (1953)
(129)	Massee (1961)	(179)	Robinson et al. (2015)
(130)	Massee (1962)	(180)	Savage (1991)
(131)	Massee (1964)	(181)	Scudder (1958a)
(132)	McAllister (1962)	(182)	Scudder (1958b)
(133)	McDermott (1960)	(183)	Shirt (1984)
(134)	McGregor & Kirkaldy (1898/99)	(184)	Sinclair (1974)
(135)	McGregor (1893)	(185)	Skidmore (1962)
(136)	McGregor (1894)	(186)	Slack (1937)
(137)	McNeill (1963)	(187)	Steel & Woodroffe (1969)
(138)	Mearns (1901)	(188)	Thornley (1896)
(139)	Miller & Owen (1952)	(189)	Waterston (1936)
(140)	Moran (1993)	(190)	Waterston (1939)
(141)	Morison (1935)	(191)	Waterston (1964)
(142)	Murray (1934)	(192)	White (1871/72)
(143)	Murray (1935)	(193)	Woodroffe (1951)
(144)	Murray (1936)	(194)	Woodroffe (1960)
(145)	Murray (1937a)	(195)	Woodroffe (1961)
(146)	Murray (1937b)	(196)	Woodroffe (1962)
(147)	Murray (1937c)	(197)	Woodroffe (1963)
(148)	Murray (1938a)	(198)	Woodroffe (1964)
(149)	Murray (1938b)	(199)	Woodroffe (1965)
(150)	Murray (1939a)	(200)	Woodroffe (1967a)
(/	<b>→</b>	(/	7

#### TABLE 1 CONTINUED.

(201)	VV 1 00 (40 cm)	(0.10)	5 1 0.5 (10.50)
(201)	Woodroffe (1967b)	(219)	Douglas & Scott (1868)
(202)	Woodroffe (1968)	(220)	White (1869)
(203)	Woodroffe (1969a)	(221)	White (1870)
(204)	Woodroffe (1969b)	(222)	Douglas (1874a)
(205)	Woodroffe (1970)	(223)	Douglas (1874b)
(206)	Woodroffe (1971a)	(224)	Douglas & Scott (1874)
(207)	Woodroffe (1971b)	(225)	Douglas & Scott (1875)
(208)	Woodroffe (1973a)	(226)	Reuter (1876a)
(209)	Woodroffe (1973b)	(227)	Reuter (1876b)
(210)	Woodroffe (1974)	(228)	Douglas (1876)
(211)	Wormell (2006)	(229)	Norman (1876)
(212)	Haines (1936)	(230)	Reuter (1877)
(213)	Blair (1932)	(231)	Saunders (1877)
(214)	Brown & Scudder (1958)	(232)	White (1877)
(215)	Douglas & Scott (1866)	(233)	Reuter (1878)
(216)	Marshall (1866)	(234)	Hewitt (2016a)
(217)	Douglas & Scott (1867a)	(235)	Hewitt (2016b)
(218)	Douglas & Scott (1867b)		

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# THE MERGING OF RYAN'S LISTS OF HEMIPTERA-HETEROPTERA FOR LEICESTERSHIRE AND RUTLAND INTO A SINGLE VICE-COUNTY LIST FOR VC55

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This article may be accused of being facile, but I felt it was important to put on record all the operations carried out in order to convert the county distribution of the Hemiptera-Heteroptera (Ryan, 2014 & 2015a) into a vice-county distribution, no matter how trivial. These operations were set out in Ryan (2015b) and have so far comprised the division of the lists for seventeen geographical regions (Scotland, Ireland and fifteen English counties) that correspond to more than one vice-county, which complete in this issue of the *Hemipterist* (Ryan, 2015c, 2015d, 2016a, 2016b, 2016c, 2017a, 2017b, 2017c, 2017d, 2018a, 2018b, 2018c, 2018d, 2018e, 2018f, 2018g & 2018h).

All that now remains to be done is to merge lists where geographical areas have been combined into a single vice-county. The merging of Furness (part of the geographical region Lancashire & Isle of Man) with Westmoreland into Watsonian Westmorland with Furness (VC69) was resolved with the division of the list for Lancashire & Isle of Man into lists for its three constituent vice-counties. In fact, any records for Furness found during the preparation of the Ryan (2014) were assigned to Westmoreland, in anticipation of this operation. Consequently, the merging of the lists for Leicestershire and Rutland into a single list for Watsonian Leicestershire with Rutland (VC55) is the final operation in the creation of the vice-county distribution.

There are just 22 records for Rutland in the county distribution, compared with 176 for Leicestershire. Only one species recorded for Rutland is not also recorded for Leicestershire, *Oeciacus hirundinis* (Lamarck) (Cimicidae). Consequently, the merging of the two lists requires the deletion of 21 duplicate records, producing a list for VC55 comprising 177 species. It is this list, which will appear in the vice-county distribution to be presented in Volume 6 of this journal.

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- Ryan, R. P. 2015d. The division of Ryan's county list of Hemiptera-Heteroptera for Gloucestershire into vice-county lists for VC33 and VC34. *Hemipterist* **2**: 30-39.
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- Ryan, R. P. 2016b. The division of Ryan's list of Hemiptera-Heteroptera for Hampshire into vice-county lists for VC10, VC11 and VC12. *Hemipterist* **3**: 39-53.
- Ryan, R. P. 2016c. The division of Ryan's list of Hemiptera-Heteroptera for Lincolnshire into vice-county lists for VC53 and VC54. *Hemipterist* **3**: 74-91.
- Ryan, R. P. 2017a. The division of Ryan's list of Hemiptera-Heteroptera for Norfolk into vice-county lists for VC27 and VC28. *Hemipterist* **4**: 26-44.
- Ryan, R. P. 2017b. The division of Ryan's list of Hemiptera-Heteroptera for Yorkshire into vice-county lists for VC61, VC62, VC63, VC64 and VC65. *Hemipterist* **4**: 85-97.
- Ryan, R. P. 2017c. The division of Ryan's list of Hemiptera-Heteroptera for Essex into vice-county lists for VC18 and VC19. *Hemipterist* **4**: 101-111.
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- Ryan, R. P. 2018b. The division of Ryan's list of Hemiptera-Heteroptera for Suffolk into vice-county lists for VC25 and VC26. *Hemipterist* **5**: 25-37.
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- Ryan, R. P. 2018d. The division of Ryan's list of Hemiptera-Heteroptera for Wiltshire into vice-county lists for VC7 and VC8. *Hemipterist* **5**: 69-77.
- Ryan, R. P. 2018e. The division of Ryan's list of Hemiptera-Heteroptera for Somerset into vice-county lists for VC5 and VC6. *Hemipterist* **5**: 92-100.
- Ryan, R. P. 2018f. The division of Ryan's list of Hemiptera-Heteroptera for Devon into vice-county lists for VC3 and VC4. *Hemipterist* **5**: 119-130.
- Ryan, R. P. 2018g. The division of Ryan's list of Hemiptera-Heteroptera for Northumberland into vice-county lists for VC67 and VC68. *Hemipterist* 5: 138-145.
- Ryan, R. P. 2018h. The division of Ryan's list of Hemiptera-Heteroptera for Scotland into vice-county lists for VC72 to VC112. *Hemipterist* **5**: 158-185.

# NYSIUS CYMOIDES (SPINOLA) (LYGAEIDAE) DELETED FROM RYAN'S LIST FOR HERTFORDSHIRE

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During my preparation of Ryan (2018), the recorder for Bedfordshire, Bernard Nau, pointed out that the records of *Nysius cymoides* (Spinola) (Lygaeidae) for Bedfordshire and Hertfordshire in Nau (2004) are erroneous. The former record was mentioned as deleted in Ryan (2018), and I have since had confirmation from the recorder for Hertfordshire, Joe Gray, that he has no record for this species. Consequently, *N. cymoides* must also be deleted from Ryan's list for Hertfordshire.

# References

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- Nau, B. S. 2004. Exhibit. British Journal of Entomology and Natural History 17: 182-183.

# NEW VICE-COUNTY RECORDS OF HEMIPTERA-HETEROPTERA FROM DATA SETS PROVIDED BY RECORDERS

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Given that the county distribution of the Hemiptera-Heteroptera (Ryan, 2014a & 2014b) has now been converted into a vice-county distribution, it is time to go through the many spreadsheets I have been sent by readers of this journal, and see if there are any additional new vice-county records. These spreadsheets were scoured for new records at the time they were received, and any new records published. However, at these times not all the historic counties of the county distribution had had their lists divided into separate lists for their constituent vice-counties. Consequently, records not new for an historic county might now be new for one of the corresponding vice-counties. The ensuing reanalysis of these spreadsheets, using my bespoke computer software, produced the following list of new records, originating from data sets supplied by Rob Coleman", Richard Dickson^, Steve Lane\* and Stuart Warrington.

Elasmostethus interstinctus (Linnaeus) (Acanthosomatidae)

VC8: 20-Aug-12, SU1845, Bulford Field (& Dumbell Copse).^

Coriomeris denticulatus (Scopoli) (Coreidae)

VC8: 14-Jul-03, SU091461, Bustard Vedette.^

Myrmus miriformis (Fallén) (Rhopalidae)

VC8: 27-Jun-11, SU091461, Bustard Vedette.^

Aphanus rolandri (Linnaeus) (Lygaeidae)

VC26: 16 May 2014, TL7786, Brandon\* & 12/07/2007, TL855832, Thetford."

Henestaris laticeps (Curtis) (Lygaeidae)

VC4: 09 Aug 1996, SS4338, Croyde.\*

Heterogaster urticae (Fabricius) (Lygaeidae)

VC13: 09-Aug-11, SU7504, Thorney Island.^

Megalonotus praetextatus (Herrich-Schaeffer) (Lygaeidae)

VC4: 09 Aug 1996, SS4339, Croyde dunes.\*

Nysius huttoni F.B. White (Lygaeidae)

VC26: 07 Aug 2015, TL78.\*

Scolopostethus affinis (Schilling) (Lygaeidae)

VC8: 27-Jun-11, SU1845, Bulford Field (& Dumbell Copse).^

Scolopostethus decoratus (Hahn) (Lygaeidae)

VC26: 07 Aug 2015, TL78.\* & 06/08/2003, TL818604, Ickworth: Fairy Lake.~

Stygnocoris rusticus (Fallén) (Lygaeidae)

VC8: 08-Sep-08, SU0348, 1 km North of Tilshead.^

Stygnocoris sabulosus (Schilling) (Lygaeidae)

VC8: 29-Aug-08, SU1845, Bulford Field (& Dumbell Copse).^

Taphropeltus contractus (Herrich-Schaeffer) (Lygaeidae)

VC26: 16 May 2014, TL7786, Brandon.\*

Berytinus clavipes (Fabricius) (Berytidae)

VC8: 20-Aug-12, SU0247, Horse Down, Nr. Tilshead.^

Physatocheila dumetorum (Herrich-Schaeffer) (Tingidae)

VC8: 11-May-09, SU1845, Bulford Field (& Dumbell Copse).^

Empicoris vagabundus (Linnaeus) (Reduviidae)

VC26: 22 Jul 2014, TL9835, Tendring Hall, Stoke-by-Nayland.\*

*Himacerus mirmicoides* (O. Costa) (Nabidae)

VC26: 04 May 2014, TL7685, Brandon.\* & 31/10/2015, TL812615, Ickworth: Albana Wood, east. ~

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Nabis flavomarginatus Scholtz (Nabidae)
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VC8: 14-Jul-03, SU091461, Bustard Vedette.^

Nabis limbatus Dahlbom (Nabidae)

VC8: 14-Jul-03, ST9852, Great Cheverell Hill.^

VC13: 15-Aug-11, SU9807, Rewell Wood, W. of Arundel.^

Nabis rugosus (Linnaeus) (Nabidae)

VC13: 28-May-12, SU9807, Rewell Wood, W. of Arundel.^

Anthocoris nemoralis (Fabricius) (Anthocoridae)

VC8: 09-Jul-12, SU1845, Bulford Field (& Dumbell Copse).^

Anthocoris nemorum (Linnaeus) (Anthocoridae)

VC3: 07-Sep-03, SX6349, Great Orcheton Farm.^

VC8: 14-Jul-03, ST9852, Great Cheverell Hill.^

VC13: 28-May-12, SU9807, Rewell Wood, W. of Arundel.^

Dufouriellus ater (Dufour) (Anthocoridae)

VC26: 15 Aug 2014, TL9935, Tendring Hall, Stoke-by-Nayland.\*

Temnostethus gracilis Horváth (Anthocoridae)

VC26: 22 Jul 2014, TL9935, Tendring Hall, Stoke-by-Nayland.\*

Loricula coleoptrata (Fallén) (Microphysidae)

VC26: 03 Sep 2015, TL78.\*

Loricula elegantula (Baerensprung) (Microphysidae)

VC26: 22 Jul 2014, TL9835, Tendring Hall, Stoke-by-Nayland.\*

Amblytylus nasutus (Kirschbaum) (Miridae)

VC8: 15-Jun-09, SU1845, Bulford Field (& Dumbell Copse).^

VC26: 02 Jul 2014, TL7786, Brandon.\*

Apolygus lucorum (Meyer-Dür) (Miridae)

VC8: 29-Aug-08, SU1845, Bulford Field (& Dumbell Copse).^

Apolygus spinolae (Meyer-Dür) (Miridae)

VC13: 31-Aug-05, SU8223, Fyning area.^

Blepharidopterus angulatus (Fallén) (Miridae)

VC8: 20-Aug-12, SU1845, Bulford Field (& Dumbell Copse).^

VC13: 15-Aug-11, SU9807, Rewell Wood.^

Calocoris roseomaculatus (De Geer) (Miridae)

VC8: 14-Jul-03, SU091461, Bustard Vedette.^

Charagochilus gyllenhalii (Fallén) (Miridae)

VC8: 25-Jul-06, ST9752, Great Cheverell Hill NR.^

Closterotomus norwegicus (Gmelin) (Miridae)

VC3: 11-Jul-07, SY2088, West Cliff, Branscombe.^

VC8: 14-Jul-03, ST9852, Great Cheverell Hill.^

VC13: 09-Aug-11, SU7504, Thorney Island.^

Deraeocoris flavilinea (A. Costa) (Miridae)

VC8: 14-Jul-03, SU0348, 1 km North of Tilshead.^

Deraeocoris lutescens (Schilling) (Miridae)

VC8: 16-May-11, SU1845, Bulford Field (& Dumbell Copse).^

Heterotoma planicornis (Pallas) (Miridae)

VC3: 11-Jul-07, SY2089, Branscombe.^

Leptopterna ferrugata (Fallén) (Miridae)

VC8: 30-Jun-04, ST9852, Great Cheverell Hill.^

Lygocoris pabulinus (Linnaeus) (Miridae)

VC8: 29-Aug-08, SU1845, Bulford Field (& Dumbell Copse).^

VC13: 15-Aug-11, SU9807, Rewell Wood, W. of Arundel.^

Megaloceroea recticornis (Geoffroy) (Miridae)

VC13: 15-Aug-11, SU9807, Rewell Wood, W. of Arundel.^

Notostira elongata (Geoffroy) (Miridae)

VC3: 11-Jul-07, SY2088, West Cliff, Branscombe.^

VC8: 30-Jun-04, ST9852, Great Cheverell Hill.^

Orthops campestris (Linnaeus) (Miridae)

VC13: 09-Aug-11, SU7504, Thorney Island.^

Orthocephalus coriaceus (Fabricius) (Miridae)

VC26: 02 Jul 2014, TL7786, Brandon.\*

Orthotylus ochrotrichus Fieber (Miridae)

VC8: 09-Jul-12, SU1845, Bulford Field (& Dumbell Copse).^

Orthotylus virescens (Douglas & Scott) (Miridae)

VC26: 07 Aug 2015, TL78.\* & 17/09/2003, TL815624, Ickworth: Horringer Park, nr Kings Meadow Road.~

Phoenicocoris obscurellus (Fallén) (Miridae)

VC26: 07 Aug 2015, TL78.\*

Phytocoris ulmi (Linnaeus) (Miridae)

VC3: 11-Jul-07, SY2088, West Cliff, Branscombe.^

Phytocoris varipes Boheman (Miridae)

VC8: 14-Jul-03, ST9752, Great Cheverell Hill NR.^

VC13: 31-Jul-05, SU8223, Fyning area.^

Pinalitus cervinus (Herrich-Schaeffer) (Miridae)

VC8: 25-Jun-12, SU1845, Bulford Field (& Dumbell Copse).^

Pithanus maerkelii (Herrich-Schaeffer) (Miridae)

VC8: 30-Jun-04, ST9852, Great Cheverell Hill.^

VC26: 10 Jun 2014, TL7685, Brandon.\*

Plagiognathus arbustorum (Fabricius) (Miridae)

VC3: 11-Jul-07, SY2089, Branscombe.^

VC8: 14-Jul-03, ST9852, Great Cheverell Hill.^

VC13: 15-Aug-11, SU9807, Rewell Wood, W. of Arundel.^

Polymerus nigrita (Fallén) (Miridae)

VC8: 14-Jul-03, ST9752, Great Cheverell Hill NR.^

VC26: 07 Aug 2015, TL78.\*

Psallus ambiguus (Fallén) (Miridae)

VC8: 22-Jun-09, SU1845, Bulford Field (& Dumbell Copse).^

Stenodema laevigata (Linnaeus) (Miridae)

VC3: 06-Jun-13, SX716861, Middlecot nr Chagford, Dartmoor.^

VC8: 14-Jul-03, ST9752, Great Cheverell Hill NR.^

VC13: 15-Aug-11, SU9807, Rewell Wood, W. of Arundel.^

Stenotus binotatus (Fabricius) (Miridae)

VC8: 30-Jun-04, ST9852, Great Cheverell Hill.^

Strongylocoris leucocephalus (Linnaeus) (Miridae)

VC8: 14-Jul-03, ST9752, Great Cheverell Hill NR.^

Ceratocombus coleoptratus (Zetterstedt) (Ceratocombidae)

VC26: 17 Sep 2015, TL78.\*

I am most grateful to Rob, Richard, Steve and Stuart for giving further permission for more of their records to be published.

## References

Ryan, R. P. 2014a. The county distribution of the Hemiptera-Heteroptera of the British Isles, fourth edition. *Hemipterist* 1: 38-103.

Ryan, R. P. 2014b. An Atlas of the Hemiptera-Heteroptera of the British Isles. https://sites.google.com/site/BritishHetBugAtlas.

# NEW VICE-COUNTY RECORDS OF HEMIPTERA-HETEROPTERA FROM THE NBN ATLAS

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With the imminent publication of the vice-county distribution of the Hemiptera-Heteroptera, and having extracted all the vice-county records from the entomological literature and recorder's spreadsheets presently available to me, I thought it was time to look at internet sources of records. The most important of these in Britain is the NBN Atlas (http://www./nbnatlas.org/), which includes among its data providers other recording websites.

On 8 April 2018, I downloaded the Hemiptera dataset of the NBN Atlas which delivered an Excel spreadsheet containing 367,576 records, containing Homoptera as well as the desired Heteroptera. There were no vice-county assignments for the records, so the bulk grid reference parser of the Botanical Society of Britain and Ireland website (https://database.bsbi.org/gridrefparser.php) was used to add these. This augmented spreadsheet was then compared against my own database, in the same manner as I have frequently done with spreadsheets supplied by readers of this journal, using bespoke computer software I have written for the purpose. Many records did not have a location of sufficient precision to be assigned to an individual vice-county, and were rejected by this process. The new vice-county records so identified were then interpreted in the same way as records published in the literature by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a, 2018b, 2018c & 2018d). All records lacking a date, essential for this interpretation, were deleted.

The result of this analysis was a spreadsheet containing 11,941 records, comprising 2,708 species-vice-county combinations that were new to the vice-county distribution. These are listed below, with the vice-county codes following the species names.

Aneurus avenius (Dufour) (Aradidae): 23.

Aneurus laevis (Fabricius) (Aradidae): 3; 6; 19; 32; 41; 55.

Aradus cinnamomeus Panzer (Aradidae): 49; 52.

Aradus depressus (Fabricius) (Aradidae): 6; 44; 50; 51; 55; 57; 95.

Acanthosoma haemorrhoidale (Linnaeus) (Acanthosomatidae): 4; 5; 7; 8; 42; 48; 50; 51; 52; 57; 65; 71; 87; 95; 103; 105; 106; 107; 108; 109.

*Cyphostethus tristriatus* (Fabricius) (Acanthosomatidae): 6; 8; 15; 35; 46; 49; 52; 56; 57; 70; 71; 96; H38.

Elasmostethus interstinctus (Linnaeus) (Acanthosomatidae): 6; 35; 36; 47; 50; 51; 52; 65; 71; 77; 82; 83; 86; 90; 94; 96; 97; 98; 99; 105; 107; 108; H38.

Elasmucha grisea (Linnaeus) (Acanthosomatidae): 5; 6; 7; 8; 35; 41; 47; 49; 50; 51; 52; 82; 83; 93; 97; 103; 105.

Adomerus biguttatus (Linnaeus) (Cydnidae): 34; 48.

Canthophorus impressus (Horváth) (Cydnidae): 26.

Geotomus punctulatus (A. Costa) (Cydnidae): 2.

Legnotus limbosus (Geoffroy) (Cydnidae): 6; 41; 46; 49; 55; 61.

Legnotus picipes (Fallén) (Cydnidae): 13.

Sehirus luctuosus Mulsant & Rey (Cydnidae): 7; 13; 29; 31; 35; 56; 61.

Tritomegas bicolor (Linnaeus) (Cydnidae): 4; 8; 13; 31; 39; 57; 59; 67.

Tritomegas sexmaculatus (Rambur) (Cydnidae): 16.

Thyreocoris scarabaeoides (Linnaeus) (Thyreocoridae): 13; 25; 32; 35; 55; 69; 70.

Eurygaster maura (Linnaeus) (Scutelleridae): 14; 34.

Eurygaster testudinaria (Geoffroy) (Scutelleridae): 3; 4; 7; 13; 14; 35; 37; 46; 49; 52; 55.

Odontoscelis lineola Rambur (Scutelleridae): 45.

Aelia acuminata (Linnaeus) (Pentatomidae): 4; 6; 7; 31; 34; 35; 42; 44; 50; 51; 56; 57.

Carpocoris purpureipennis (De Geer) (Pentatomidae): 14.

Dolycoris baccarum (Linnaeus) (Pentatomidae): 8; 31; 42; 47; 50; 51; 59; 64; 69; 73; 74; 75; 86; 87; 90; 91.

Eurydema dominulus (Scopoli) (Pentatomidae): 63; 64.

Eurydema oleracea (Linnaeus) (Pentatomidae): 5; 6; 7; 13; 32; 37; 53; 54; 55.

Evsarcoris venustissimus (Schrank) (Pentatomidae): 3; 5; 6; 14; 34; 35; 36; 37; 41; 42; 55; 64.

Neottiglossa pusilla (Gmelin) (Pentatomidae): 6; 56.

Palomena prasina (Linnaeus) (Pentatomidae): 4; 7; 42; 43; 47; 50; 51; 57; 62; 64; 69; 70; 71; 96.

Pentatoma rufipes (Linnaeus) (Pentatomidae): 4; 35; 51; 57; 71; 74; 75; 76; 77; 78; 82; 83; 84; 87; 93; 97; 98; 108; H39.

Peribalus strictus (Fabricius) (Pentatomidae): 44.

*Picromerus bidens* (Linnaeus) (Pentatomidae): 4; 5; 6; 13; 31; 35; 36; 43; 47; 50; 51; 52; 55; 57; 67; 69; 74; 75; 76; 77; 82; 86; 87; 90; 95; 96; 97; 98; 100; 103; 106; 107; H38.

*Piezodorus lituratus* (Fabricius) (Pentatomidae): 4; 31; 35; 42; 47; 51; 57; 73; 75; 77; 78; 83; 86; 90; 91; 93; 94; 96; 104; 105; 106; 109; H38.

Podops inunctus (Fabricius) (Pentatomidae): 31; 35; 55; 56; 57.

Rhacognathus punctatus (Linnaeus) (Pentatomidae): 49; 57; 64; 69; 95; 96; 98; 106; 107.

Sciocoris cursitans (Fabricius) (Pentatomidae): 28; 34.

Troilus luridus (Fabricius) (Pentatomidae): 6; 36; 49; 51; 55; 57; 67; 73; 82; 83; 96.

Zicrona caerulea (Linnaeus) (Pentatomidae): 3; 35; 43; 47; 48; 49; 50; 51; 55; 56; 95.

Arenocoris fallenii (Schilling) (Coreidae): 25; 32; 42; 49.

Bathysolen nubilus (Fallén) (Coreidae): 29.

Ceraleptus lividus Stein (Coreidae): 25; 26; 31.

Coreus marginatus (Linnaeus) (Coreidae): 4; 6; 7; 26; 31; 33; 35; 47; 52; 56; 57; 59; 63; 64.

Coriomeris denticulatus (Scopoli) (Coreidae): 4; 6; 35; 36; 46; 49; 50; 51; 56; 59; 61; 62; 64; 69.

Enoplops scapha (Fabricius) (Coreidae): 34.

Gonocerus acuteangulatus (Goeze) (Coreidae): 6; 7; 8; 14; 15; 25; 29; 32; 37; 38; 53.

Leptoglossus occidentalis Heidemann (Coreidae): 1; 3; 4; 5; 6; 7; 8; 16; 24; 26; 29; 31; 34; 36; 39; 41; 43; 44; 45; 46; 48; 49; 50; 51; 52; 59; 61; 65; 67; 70; 71; 74; 85; 90; 111; H21; H40.

Spathocera dalmanii (Schilling) (Coreidae): 18; 26.

Syromastus rhombeus (Linnaeus) (Coreidae): 14; 35.

Alydus calcaratus (Linnaeus) (Alydidae): 13; 39; 46; 52.

Chorosoma schillingii (Schilling) (Rhopalidae): 13; 42; 51; 56.

Corizus hyoscyami (Linnaeus) (Rhopalidae): 5; 26; 39; 42; 55; 56; 57; 60; 64; 66; 71.

Liorhyssus hyalinus (Fabricius) (Rhopalidae): 3; 5.

Myrmus miriformis (Fallén) (Rhopalidae): 6; 31; 41; 49; 67; 69.

Rhopalus maculatus (Fieber) (Rhopalidae): 26.

Rhopalus parumpunctatus Schilling (Rhopalidae): 10: 13: 25: 46: 52.

Rhopalus rufus Schilling (Rhopalidae): 25.

Rhopalus subrufus (Gmelin) (Rhopalidae): 6; 7; 25; 31; 35; 36; 43; 47; 49; 56; 59; 61; 66; 69.

Stictopleurus abutilon (Rossi) (Rhopalidae): 13; 14.

Stictopleurus punctatonervosus (Goeze) (Rhopalidae): 15; 25; 55; 61.

Pyrrhocoris apterus (Linnaeus) (Pyrrhocoridae): 6; 13; 15; 34; 36.

Dicranocephalus medius (Mulsant & Rey) (Stenocephalidae): 6; 14.

Acompus rufipes (Wolff) (Lygaeidae): 35; 39; 57.

Beosus maritimus (Scopoli) (Lygaeidae): 44.

Chilacis typhae (Perris) (Lygaeidae): 3; 34; 43; 50; 51; 56; 57; 69.

Cymus claviculus (Fallén) (Lygaeidae): 26; 32; 49; 52; 70.

Cymus glandicolor Hahn (Lygaeidae): 35; 42; 43; 47; 49; 57.

Cymus melanocephalus Fieber (Lygaeidae): 3; 6; 14; 25; 35; 41; 42; 43; 49; 52; 55; 59; 67.

Drymus brunneus (R.F. Sahlberg) (Lygaeidae): 6; 43; 48; 77; 81; 82; 90; 104; 107; 108.

Drymus latus Douglas & Scott (Lygaeidae): 50.

Drymus pumilio Puton (Lygaeidae): 35.

Drymus ryeii Douglas & Scott (Lygaeidae): 6; 14; 35; 46; 49; 52; 55; 69; 96.

Drymus sylvaticus (Fabricius) (Lygaeidae): 43; 45; 67; 86; 94; 96; 106; 108.

Eremocoris plebejus (Fallén) (Lygaeidae): 17; 69; 106.

Eremocoris podagricus (Fabricius) (Lygaeidae): 9; 55; 63. Gastrodes abietum Bergroth (Lygaeidae): 26; 96. Gastrodes grossipes (De Geer) (Lygaeidae): 35; 56; 69; 82; 105; 107. Graptopeltus lynceus (Fabricius) (Lygaeidae): 4. Heterogaster artemisiae Schilling (Lygaeidae): 6: 70. Heterogaster urticae (Fabricius) (Lygaeidae): 3; 6; 7; 34; 35; 37; 43; 45; 46; 47; 49; 50; 52; 55; 56; 69; Ischnocoris angustulus (Boheman) (Lygaeidae): 46; 48. Ischnodemus sabuleti (Fallén) (Lygaeidae): 35; 41. Kleidocerys ericae (Horváth) (Lygaeidae): 45; 96; 97. Kleidocerys resedae (Panzer) (Lygaeidae): 6; 31; 42; 48; 49; 50; 52; 69; 70; 96. Lamproplax picea (Flor) (Lygaeidae): 15; 42; 43; 50; 52. Lasiosomus enervis (Herrich-Schaeffer) (Lygaeidae): 35. Macrodema microptera (Curtis) (Lygaeidae): 26; 41; 52; 56; 71; 96; H38. Megalonotus chiragra (Fabricius) (Lygaeidae): 6; 9; 35; 41; 49; 70. Megalonotus dilatatus (Herrich-Schaeffer) (Lygaeidae): 52. Megalonotus emarginatus (Rey) (Lygaeidae): 55. Megalonotus praetextatus (Herrich-Schaeffer) (Lygaeidae): 49. Nysius ericae (Schilling) (Lygaeidae): 15; 25; 41; 48; 70; 86; 96. Nysius graminicola (Kolenati) (Lygaeidae): 15. Nysius senecionis (Schilling) (Lygaeidae): 25. Nysius thymi (Wolff) (Lygaeidae): 6; 25; 26; 41; 48; 49; 63; 67; 68; 70; 84; 86; 105; 108. Orsillus depressus (Mulsant & Rey) (Lygaeidae): 55. Pachybrachius fracticollis (Schilling) (Lygaeidae): 41; 42; 43; 47; 49; 50; 52; 69. Pachybrachius luridus Hahn (Lygaeidae): 48; 52. Peritrechus geniculatus (Hahn) (Lygaeidae): 3; 6; 35; 45; 49; 52; 69; 70; 71. Peritrechus lundii (Gmelin) (Lygaeidae): 6; 25; 35; 46; 49; 52. Peritrechus nubilus (Fallén) (Lygaeidae): 32. Plinthisus brevipennis (Latreille) (Lygaeidae): 6; 34; 56; 70. Raglius alboacuminatus (Goeze) (Lygaeidae): 26. Rhyparochromus pini (Linnaeus) (Lygaeidae): 49. Rhyparochromus vulgaris (Schilling) (Lygaeidae): 25. Scolopostethus affinis (Schilling) (Lygaeidae): 35; 49; 71; 86; 96. Scolopostethus decoratus (Hahn) (Lygaeidae): 35; 42; 43; 47; 67; 95; 97; 105; 108; 111; H38. Scolopostethus grandis Horváth (Lygaeidae): 35; 47; 48; 50; 52; 62; 63. Scolopostethus puberulus Horváth (Lygaeidae): 6; 35; 41; 49; 50; 63. Scolopostethus thomsoni Reuter (Lygaeidae): 6; 35; 49; 52; 75; 95; 105; 111. Stygnocoris fuligineus (Geoffroy) (Lygaeidae): 6; 26; 35; 47; 51; 96; 106; H38. Stygnocoris rusticus (Fallén) (Lygaeidae): 35; 50; 68; 96. Stygnocoris sabulosus (Schilling) (Lygaeidae): 4; 6; 43; 50; 67; 77; 108; 111; H38. Taphropeltus contractus (Herrich-Schaeffer) (Lygaeidae): 6; 49. Trapezonotus arenarius (Linnaeus) (Lygaeidae): 17; 48; 52; 69; 70; 71. Trapezonotus desertus Seidenstücker (Lygaeidae): 15; 25; 41; 48; 52; 70; 74; 95. Trapezonotus dispar Stål (Lygaeidae): 41. Trapezonotus ullrichi (Fieber) (Lygaeidae): 4. Tropistethus holosericus (Scholtz) (Lygaeidae): 41. Xanthochilus quadratus (Fabricius) (Lygaeidae): 58. Berytinus crassipes (Herrich-Schaeffer) (Berytidae): 30; 41; 45; 49. Berytinus hirticornis (Brullé) (Berytidae): 16. Berytinus minor (Herrich-Schaeffer) (Berytidae): 57; 63; 85. Berytinus montivagus (Meyer-Dür) (Berytidae): 19. Berytinus signoreti (Fieber) (Berytidae): 12; 35; 49; 66; 96. Gampsocoris punctipes (Germar) (Berytidae): 50; 69; 71.

Metatropis rufescens (Herrich-Schaeffer) (Berytidae): 4; 13; 15; 26; 35; 42; 43; 48; 49; 52; 55; 57; 58.

Neides tipularius (Linnaeus) (Berytidae): 34; 69.

Parapiesma quadratum (Fieber) (Piesmatidae): 6; 50; 51; 63; 69; 96. Piesma maculatum (Laporte) (Piesmatidae): 6; 34; 96. Acalypta brunnea (Germar) (Tingidae): 15; 69; 70; 96; 104. Acalypta carinata (Panzer) (Tingidae): 26; 33; 43; 48; 49; 50; 52; 69; 77; 111. Acalypta nigrina (Fallén) (Tingidae): 15: 94: 107. Acalypta parvula (Fallén) (Tingidae): 35; 42; 49; 50; 51; 68; 96; 105; 106; 107; 108; 111; H38. Agramma laetum (Fallén) (Tingidae): 13; 48; 49; 52; 56. Campylosteira verna (Fallén) (Tingidae): 2; 5; 14; 32; 42; 49. Derephysia foliacea (Fallén) (Tingidae): 43. Dictyla convergens (Herrich-Schaeffer) (Tingidae): 3; 15; 35; 42; 46; 49; 50; 52; 55; 57. Dictyonota fuliginosa A. Costa (Tingidae): 56. Dictyonota strichnocera Fieber (Tingidae): 4; 26; 42; 69. Kalama tricornis (Schrank) (Tingidae): 35. Physatocheila dumetorum (Herrich-Schaeffer) (Tingidae): 4; 35; 36; 55. Stephanitis takeyai Drake & Maa (Tingidae): 41. Tingis ampliata (Herrich-Schaeffer) (Tingidae): 44; 45; 47; 49; 52; 55; 59; 62. Tingis cardui (Linnaeus) (Tingidae): 35; 50; 69; 75; 82; 83; 84; 97; 108. Tingis reticulata Herrich-Schaeffer (Tingidae): 41. Coranus woodroffei P.V. Putshkov (Reduviidae): 41; 52; 70. Empicoris baerensprungi (Dohrn) (Reduviidae): 15. Empicoris vagabundus (Linnaeus) (Reduviidae): 36; 52; 81; 82; 85; 107. Reduvius personatus (Linnaeus) (Reduviidae): 57. Himacerus apterus (Fabricius) (Nabidae): 6; 35; 36; 41; 55; 57. Himacerus boops (Schiødte) (Nabidae): 14; 41; 52. Himacerus major (A. Costa) (Nabidae): 35; 50; 51; 68; 69; 73; 91; 96. Himacerus mirmicoides (O. Costa) (Nabidae): 4; 56; 57; 61; 70. Nabis brevis Scholtz (Nabidae): 16; 34. Nabis ericetorum Scholtz (Nabidae): 45; 48; 50; 55; 67; 97; 105; 106; 107. Nabis ferus (Linnaeus) (Nabidae): 6; 25; 35; 47; 50; 86; 96; 106. Nabis flavomarginatus Scholtz (Nabidae): 35; 51; 75; 82; 83; 84; 90; 95; 107; 108; 111. Nabis limbatus Dahlbom (Nabidae): 6; 51; 75; 76; 77; 97; 98; 107; 108; 111. Nabis lineatus Dahlbom (Nabidae): 26; 39; 49; 57; 59; 67; 70; 95; 96. Nabis pseudoferus Remane (Nabidae): 6; 70. Nabis rugosus (Linnaeus) (Nabidae): 4; 51; 67; 69; 75; 96; 106. Acompocoris alpinus Reuter (Anthocoridae): 33; 35; 40; 70; 105; 107. Acompocoris pygmaeus (Fallén) (Anthocoridae): 35; 47; 52; 82; 83; 105. Anthocoris confusus Reuter (Anthocoridae): 4; 6; 25; 42; 50; 51; 52; 67; 96; 105; 106; H40. Anthocoris gallarumulmi (De Geer) (Anthocoridae): 26; 69; 96. Anthocoris limbatus Fieber (Anthocoridae): 6; 49. Anthocoris minki Dohrn (Anthocoridae): 15. Anthocoris nemoralis (Fabricius) (Anthocoridae): 35; 42; 50; 51; 68; 75; 80; 82; 83; 86; 94; 95; 96; 97; 108; 109; 111. Anthocoris nemorum (Linnaeus) (Anthocoridae): 4; 25; 50; 51; 75; 76; 80; 84; 91; 93; 94; 97; 108; 109; 111; H40. Anthocoris sarothamni Douglas & Scott (Anthocoridae): 35; 41; 57; 61; 63; 96; 105; 107. Anthocoris simulans Reuter (Anthocoridae): 15; 34; 35; 41; 58; 70; 96; 106; 108. Anthocoris visci Douglas (Anthocoridae): 33; 35. Brachysteles parvicornis (A. Costa) (Anthocoridae): 15. Buchananiella continua (F.B. White) (Anthocoridae): 2. Cardiastethus fasciiventris (Garbiglietti) (Anthocoridae): 14; 37. Dufouriellus ater (Dufour) (Anthocoridae): 35; 57. Elatophilus nigricornis (Zetterstedt) (Anthocoridae): 70; 72. Lyctocoris campestris (Fabricius) (Anthocoridae): 96; 106.

Orius laevigatus (Fieber) (Anthocoridae): 6; 29; 35; 41; 49; 52.

Orius laticollis (Reuter) (Anthocoridae): 35; 42.

Orius majusculus (Reuter) (Anthocoridae): 35; 41; 43; 50. Orius niger (Wolff) (Anthocoridae): 6; 25; 31; 35; 50; 70. Orius vicinus (Ribaut) (Anthocoridae): 6; 14; 16; 25; 26; 35; 37; 41; 49; 63; 70. Temnostethus gracilis Horváth (Anthocoridae): 35; 37; 41; 42; 57; 58; 67; 70; 95; 105; 107; 108. Temnostethus pusillus (Herrich-Schaeffer) (Anthocoridae): 35: 41: 57: 63: 70: 95: 106. Tetraphleps bicuspis (Herrich-Schaeffer) (Anthocoridae): 35; 96; 105. Xylocoris cursitans (Fallén) (Anthocoridae): 7; 13; 25; 47. Cimex lectularius Linnaeus (Cimicidae): 49; 69; 104; 105. Cimex pipistrelli Jenyns (Cimicidae): 17; 39; 41; 47; 49; 52; 70. Loricula distinguenda (Reuter) (Microphysidae): 4; 35; 51; 52; 64; 70. Loricula elegantula (Baerensprung) (Microphysidae): 3; 35; 46; 52; 55; 69; 70. Loricula exilis (Fallén) (Microphysidae): 26; 47; 52; 56; 70; 95; 105; 108. Loricula pselaphiformis Curtis (Microphysidae): 35; 48; 49; 50; 94. Acetropis gimmerthalii (Flor) (Miridae): 35; 41; 42. Adelphocoris lineolatus (Goeze) (Miridae): 6; 35; 42; 68; 69; 75; 82; 91; 96. Adelphocoris ticinensis (Meyer-Dür) (Miridae): 15; 38. Alloeotomus gothicus (Fallén) (Miridae): 25; 35; 57; 63. Amblytylus brevicollis Fieber (Miridae): 15; 69. Amblytylus delicatus (Perris) (Miridae): 25. Amblytylus nasutus (Kirschbaum) (Miridae): 6; 35; 41; 67. Apolygus lucorum (Meyer-Dür) (Miridae): 19; 48; 75; 83; 85; 105. Apolygus spinolae (Meyer-Dür) (Miridae): 6; 35; 47; 52; 69; 70. Asciodema obsoleta (Fieber) (Miridae): 4; 15; 26; 50; 52; 55; 69; 75; 105; 108. Atractotomus magnicornis (Fallén) (Miridae): 46; 67; 95. Atractotomus mali (Meyer-Dür) (Miridae): 14; 26; 35; 41. Atractotomus parvulus Reuter (Miridae): 15; 56; 82; 92; 96. Blepharidopterus angulatus (Fallén) (Miridae): 50; 51; 52; 67; 75; 83. Bothynotus pilosus (Boheman) (Miridae): 95; 104; 111. Brachyarthrum limitatum Fieber (Miridae): 6; 57. Bryocoris pteridis (Fallén) (Miridae): 6; 13; 35; 52; 83; 96. Calocoris alpestris (Meyer-Dür) (Miridae): 6; 35; 47; 49; 50; 51; 55; 96. Calocoris roseomaculatus (De Geer) (Miridae): 35; 42; 50; 69; 75; 86; 109. Camptozygum aequale (Villers) (Miridae): 26; 96; 105. Campylomma annulicorne (Signoret) (Miridae): 15. Campylomma verbasci (Meyer-Dür) (Miridae): 9. Campyloneura virgula (Herrich-Schaeffer) (Miridae): 4; 35; 37; 49; 52; 67; 69; 77; 85; 96. Capsus ater (Linnaeus) (Miridae): 3; 4; 25; 35; 49; 50; 51; 75; 77; 80; 82; 84; 87; 105; 111. Charagochilus gyllenhalii (Fallén) (Miridae): 35; 41; 42; 52; 69; 96; 105. Chlamydatus evanescens (Boheman) (Miridae): 48. Chlamydatus pulicarius (Fallén) (Miridae): 63; 69. Chlamydatus pullus (Reuter) (Miridae): 77; 86; 107. Chlamydatus saltitans (Fallén) (Miridae): 52; 96. Chlamydatus wilkinsoni (Douglas & Scott) (Miridae): 43; 69. Closterotomus fulvomaculatus (De Geer) (Miridae): 34; 35. Closterotomus norwegicus (Gmelin) (Miridae): 4; 25; 35; 51; 67; 69; 75; 76; 77; 82; 84; 86; 98; 99; 108. Compsidolon salicellum (Herrich-Schaeffer) (Miridae): 35; 57; 59; 69. Conostethus brevis Reuter (Miridae): 25; 107. Conostethus griseus Douglas & Scott (Miridae): 15; 41. Conostethus roseus (Fallén) (Miridae): 57. Cyllecoris histrionius (Linnaeus) (Miridae): 34; 35; 43; 47; 48; 49; 51; 65; 75; 96; 106; 107. Cyrtorhinus caricis (Fallén) (Miridae): 15; 35; 43; 50; 51; 69; 105; 106; 108.

Deraeocoris flavilinea (A. Costa) (Miridae): 3; 6; 16; 25; 41; 55; 77. Deraeocoris lutescens (Schilling) (Miridae): 35; 45; 46; 55; 57; 61; 69; 75.

Deraeocoris olivaceus (Fabricius) (Miridae): 11; 34; 35.

Deraeocoris ruber (Linnaeus) (Miridae): 35; 50; 57.

Deraeocoris scutellaris (Fabricius) (Miridae): 1; 15; 39; 60; 96.

Dichrooscytus gustavi Josifov (Miridae): 29.

Dichrooscytus rufipennis (Fallén) (Miridae): 1; 6; 15; 44; 45; 46; 48; 49; 52; 82; 106.

Dicyphus annulatus (Wolff) (Miridae): 49; 58; 68.

Dicyphus constrictus (Boheman) (Miridae): 6; 15; 35; 42; 57; 70.

Dicyphus epilobii Reuter (Miridae): 4; 13; 25; 35; 46; 51; 52; 64; 69; 75; 83; 96.

Dicyphus errans (Wolff) (Miridae): 4; 26; 35; 48; 51; 52; 55.

Dicyphus globulifer (Fallén) (Miridae): 4; 6; 35; 41; 64; 69; 82; 85; 96.

Dicyphus pallicornis (Fieber) (Miridae): 15; 42; 48; 51; 55; 67; 82; 83; 97; 105; 107; 108.

Dicyphus stachydis J. Sahlberg (Miridae): 6; 13; 35; 42; 47; 51; 52; 59; 69; 75; 77; 82; 83; 96; 104; 105.

Dryophilocoris flavoquadrimaculatus (De Geer) (Miridae): 3; 35; 42; 43; 47; 48; 57; 64; 67; 95; 96; 106.

Fieberocapsus flaveolus (Reuter) (Miridae): 35.

Globiceps fulvicollis Jakovlev (Miridae): 41.

Globiceps juniperi Reuter (Miridae): 68; 70; 106.

Grypocoris stysi (Wagner) (Miridae): 14; 25; 42; 50; 51; 75; 76; 77; 82; 85; 87; 90; 95; 96.

Hallodapus rufescens (Burmeister) (Miridae): 7; 43; 48; 50; 106.

Halticus apterus (Linnaeus) (Miridae): 12; 52.

Halticus saltator (Geoffroy) (Miridae): 15.

Harpocera thoracica (Fallén) (Miridae): 43; 47; 50; 52; 96; 98; 106; 107.

Heterocordylus genistae (Scopoli) (Miridae): 15; 35; 43; 50; 96; 107.

Heterocordylus tibialis (Hahn) (Miridae): 4; 35; 48; 49; 75; 82; 105; 107; 108.

Heterotoma planicornis (Pallas) (Miridae): 4; 35; 42; 66; 69; 83; 86.

Hoplomachus thunbergii (Fallén) (Miridae): 6; 14; 27; 41; 66.

Hypseloecus visci (Puton) (Miridae): 27.

Leptopterna dolabrata (Linnaeus) (Miridae): 42; 50; 51; 68; 75; 76; 77; 80; 82; 83; 84; 86; 87; 93; 94; 95; 104; 105; 108; 110.

Leptopterna ferrugata (Fallén) (Miridae): 4; 35; 42; 51; 64; 73; 75; 82; 83; 84; 86; 87; 97; 98; 108; 109.

Liocoris tripustulatus (Fabricius) (Miridae): 3; 13; 35; 75; 83; 93; 104; 107; 108.

Lopus decolor (Fallén) (Miridae): 4; 6; 48; 50; 52; 69; 86; 96; 99.

Lygocoris pabulinus (Linnaeus) (Miridae): 4; 35; 51; 52; 75; 97; 105; 107; 108; 111.

Lygocoris rugicollis (Fallén) (Miridae): 34; 35; 48; 50; 52; 75; 83; 97; 108; 111.

Lygus maritimus Wagner (Miridae): 16; 25; 41; 48; 49; 68; 69; 70; 71; 84; 95; 96; 104; 107.

Lygus pratensis (Linnaeus) (Miridae): 25; 55; 66; 106.

Lygus punctatus (Zetterstedt) (Miridae): 69; 84; 86; 106; 107.

Lygus rugulipennis Poppius (Miridae): 14; 25; 42; 51; 62; 66; 67; 68; 70; 75; 76; 77; 80; 83; 84; 95; 99; 105; 107; 108; H38; H40.

Lygus wagneri Remane (Miridae): 6; 39; 41; 42; 45; 48; 49; 50; 69; 70; 72; 83; 86; 96; 97; 105.

Macrolophus pygmaeus (Rambur) (Miridae): 42; 46; 57; 63; 70; 96.

Macrolophus rubi Woodroffe (Miridae): 41; 57; 63; 96.

Macrotylus paykullii (Fallén) (Miridae): 4; 35; 66; 67; 69; 82.

Macrotylus solitarius (Meyer-Dür) (Miridae): 15; 42; 70.

Malacocoris chlorizans (Panzer) (Miridae): 4; 26; 35; 42; 96; 104; 105; 106; 108.

Mecomma ambulans (Fallén) (Miridae): 4; 52; 67; 69; 75; 80; 82; 97; 107; 108.

Mecomma dispar (Boheman) (Miridae): 1; 39; 52; 106.

Megacoelum beckeri (Fieber) (Miridae): 6; 11.

Megacoelum infusum (Herrich-Schaeffer) (Miridae): 6; 35; 42.

Megaloceroea recticornis (Geoffroy) (Miridae): 6; 35; 45; 52; 59; 67.

Megalocoleus molliculus (Fallén) (Miridae): 35; 49; 69; 70.

Megalocoleus tanaceti (Fallén) (Miridae): 52; 70; 86.

Miridius quadrivirgatus (A. Costa) (Miridae): 6; 26; 27; 35; 55; 59.

Miris striatus (Linnaeus) (Miridae): 6; 35; 48; 49; 50; 51; 59; 75; 77; 86; 99.

Monalocoris filicis (Linnaeus) (Miridae): 3; 4; 6; 47; 51; 52; 65; 67; 75; 83; 94; 105; 111.

Monosynamma bohemanni (Fallén) (Miridae): 41.

Monosynamma sabulicola (Wagner) (Miridae): 48; 69; 70.

Myrmecoris gracilis (R.F. Sahlberg) (Miridae): 6; 25; 35.

Neolygus contaminatus (Fallén) (Miridae): 35; 42; 52; 67; 69; 73; 75; 97; 111.

Neolygus populi (Leston) (Miridae): 16.

Neolygus viridis (Fallén) (Miridae): 4; 19; 35; 47; 48; 50; 55; 69; 75; 82; 96; 106; H38.

Notostira elongata (Geoffroy) (Miridae): 35; 36; 42; 48; 51; 62; 68; 69; 72; 75; 96.

Oncotylus viridiflavus (Goeze) (Miridae): 4; 6; 35; 41; 55; 56; 57; 61.

Orthocephalus coriaceus (Fabricius) (Miridae): 35.

Orthocephalus saltator (Hahn) (Miridae): 27; 34; 35; 50; 75; 106.

Orthonotus rufifrons (Fallén) (Miridae): 6; 13; 35; 42; 46.

Orthops basalis (A. Costa) (Miridae): 35; 55; 57; 62; 70; 95; 96; 107.

Orthops campestris (Linnaeus) (Miridae): 6; 14; 25; 26; 35; 41; 46; 49; 52; 68; 69; 70; 71; 77; 95; 97; 105; 108; 111.

Orthops kalmii (Linnaeus) (Miridae): 6; 15; 35; 41; 44; 46; 47; 49; 52; 56; 57; 70; 96.

Orthotylus adenocarpi (Perris) (Miridae): 70; 72; 96.

Orthotylus bilineatus (Fallén) (Miridae): 69; 105; 107.

Orthotylus concolor (Kirschbaum) (Miridae): 15; 19.

Orthotylus ericetorum (Fallén) (Miridae): 18; 26; 35; 43; 52; 69; 71; 105; 108; 111; H38; H39.

Orthotylus flavinervis (Kirschbaum) (Miridae): 42; 46; 57; 63; 70.

Orthotylus flavosparsus (C.R. Sahlberg) (Miridae): 6; 26.

Orthotylus fuscescens (Kirschbaum) (Miridae): 105.

Orthotylus marginalis Reuter (Miridae): 6; 35; 50; 52; 67; 75; 82; 83.

Orthotylus moncreaffi (Douglas & Scott) (Miridae): 41; 68.

Orthotylus nassatus (Fabricius) (Miridae): 25; 26; 35; 70.

Orthotylus ochrotrichus Fieber (Miridae): 6; 35; 43; 48; 55; 56; 57; 70; 105.

Orthotylus prasinus (Fallén) (Miridae): 82.

Orthotylus tenellus (Fallén) (Miridae): 4; 35; 69; 96.

Orthotylus virescens (Douglas & Scott) (Miridae): 4; 6; 35; 52; 95; 105.

Orthotylus viridinervis (Kirschbaum) (Miridae): 44; 63; 69; 75; 83.

Pachytomella parallela (Meyer-Dür) (Miridae): 41; 42; 44; 69; 70; 75; 82; 83; 95; 98; 101; 105; 107.

Pantilius tunicatus (Fabricius) (Miridae): 6; 35; 46; 47; 48; 52; 69; 96; 106; 107.

Parapsallus vitellinus (Scholtz) (Miridae): 47; 82; 96.

Phoenicocoris obscurellus (Fallén) (Miridae): 15; 82; 105.

Phylus coryli (Linnaeus) (Miridae): 35; 69; 104.

Phylus melanocephalus (Linnaeus) (Miridae): 35; 47; 48; 49; 75; 77; 85; 96; 105.

Phytocoris dimidiatus Kirschbaum (Miridae): 6; 52; 67; 104; 105; 106; 108.

Phytocoris insignis Reuter (Miridae): 16; 25.

Phytocoris longipennis Flor (Miridae): 15; 35; 52; 69; 85; 105; 106; H38.

Phytocoris pini Kirschbaum (Miridae): 82.

Phytocoris populi (Linnaeus) (Miridae): 6; 47; 50; 69; 80; 105.

Phytocoris reuteri Saunders (Miridae): 4; 6; 15; 34; 63.

Phytocoris tiliae (Fabricius) (Miridae): 35; 47; 52; 69; 83; 104; 106.

Phytocoris ulmi (Linnaeus) (Miridae): 4; 46.

Phytocoris varipes Boheman (Miridae): 3; 4; 35; 42; 51; 52; H38.

Pilophorus cinnamopterus (Kirschbaum) (Miridae): 5; 56; 92.

Pilophorus clavatus (Linnaeus) (Miridae): 9.

Pilophorus perplexus Douglas & Scott (Miridae): 6; 25; 33; 55; 57.

Pinalitus atomarius (Meyer-Dür) (Miridae): 46.

Pinalitus cervinus (Herrich-Schaeffer) (Miridae): 6; 35; 42; 52; 75; 83; 96; 105.

Pinalitus viscicola (Puton) (Miridae): 5; 33; 35; 70.

Pithanus maerkelii (Herrich-Schaeffer) (Miridae): 6; 35; 50; 75; 87; 97; 108.

Plagiognathus arbustorum (Fabricius) (Miridae): 4; 25; 35; 42; 51; 75; 76; 77; 82; 84; 97; 108; 110.

Plagiognathus chrysanthemi (Wolff) (Miridae): 25; 35; 42; 51; 60; 67; 75; 76; 77; 82; 84; 108.

Platycranus bicolor (Douglas & Scott) (Miridae): 15; 42; 45; 55; 57.

Plesiodema pinetella (Zetterstedt) (Miridae): 82; 96; 105.

Polymerus nigrita (Fallén) (Miridae): 14; 35; 41; 46; 50; 51; 55; 67; 69; 82; 83; 97; 106.

Polymerus palustris (Reuter) (Miridae): 6; 26; 35; 41; 43; 48; 52; 56; 70; 73.

Polymerus unifasciatus (Fabricius) (Miridae): 8; 13; 35; 43; 52; 69; 95.

Psallus ambiguus (Fallén) (Miridae): 35; 44; 48; 75; 82; 83.

Psallus assimilis Stichel (Miridae): 16; 34; 35; 63.

Psallus betuleti (Fallén) (Miridae): 41; 55; 95; 96; 104; 105; 108.

Psallus confusus Rieger (Miridae): 9; 41; 42; 49; 70; 96.

Psallus falleni Reuter (Miridae): 25; 69; 96.

Psallus flavellus Stichel (Miridae): 6; 35; 46; 64; 69; 70; 96.

Psallus haematodes (Gmelin) (Miridae): 50; 52; 97; 111.

Psallus lepidus Fieber (Miridae): 35; 46; 49; 83; 96; 105.

Psallus luridus Reuter (Miridae): 15; 96.

Psallus mollis (Mulsant & Rey) (Miridae): 44; 49; 56; 96; 105.

Psallus perrisi (Mulsant & Rey) (Miridae): 25; 35; 41; 47; 48; 57; 69; 106.

Psallus quercus (Kirschbaum) (Miridae): 63; 70.

Psallus salicis (Kirschbaum) (Miridae): 35; 49; 69; 96; 104; 106; 107.

Psallus variabilis (Fallén) (Miridae): 105.

Psallus varians (Herrich-Schaeffer) (Miridae): 26; 34; 35; 36; 51; 104; 105.

Psallus wagneri Ossiannilsson (Miridae): 16; 65.

Pseudoloxops coccineus (Meyer-Dür) (Miridae): 6; 34; 35; 37.

Rhabdomiris striatellus (Fabricius) (Miridae): 6; 35; 43; 45; 47; 65; 75; 77; 82; 96; 106.

Salicarus roseri (Herrich-Schaeffer) (Miridae): 35; 49; 55.

Stenodema calcarata (Fallén) (Miridae): 3; 4; 13; 31; 35; 47; 51; 75; 76; 77; 83; 86; 99; 103; 105; 108; H40.

Stenodema holsata (Fabricius) (Miridae): 6; 35; 47; 51; 75; 76; 77; 80; 82; 83; 84; 97; 108.

Stenodema laevigata (Linnaeus) (Miridae): 4; 25; 31; 42; 47; 50; 51; 66; 67; 68; 75; 76; 77; 84; 85; 86; 96; 99; 105.

Stenotus binotatus (Fabricius) (Miridae): 4; 13; 42; 50; 51; 69; 70; 75; 77; 85; 86; 106; 110.

Sthenarus rotermundi (Scholtz) (Miridae): 46; 63.

Strongylocoris leucocephalus (Linnaeus) (Miridae): 32; 69; 96.

Strongylocoris luridus (Fallén) (Miridae): 49.

Teratocoris antennatus (Boheman) (Miridae): 6; 35; 41; 49; 67.

Teratocoris caricis Kirkaldy (Miridae): 70.

Teratocoris saundersi Douglas & Scott (Miridae): 13; 19; 41; 42; 43; 50; 105; 108; 111.

Teratocoris viridis Douglas & Scott (Miridae): 50; 70.

Tinicephalus hortulanus (Meyer-Dür) (Miridae): 49; 69.

Trigonotylus caelestialium (Kirkaldy) (Miridae): 15; 35; 52; 55; 68; 86; 95.

Trigonotylus psammaecolor Reuter (Miridae): 48; 52; 69.

*Trigonotylus ruficornis* (Geoffroy) (Miridae): 14; 15; 25; 35; 41; 42; 44; 52; 56; 57; 63; 66; 68; 69; 70; 72; 75; 86; 97; 104; 105; 108; 111.

Tupiocoris rhododendri (Dolling) (Miridae): 15; 44.

Tuponia brevirostris Reuter (Miridae): 15.

Tytthus pubescens (Knight) (Miridae): 35; 41; 52.

Tytthus pygmaeus (Zetterstedt) (Miridae): 32; 35; 41; 48; 50; 52; 63.

Ceratocombus coleoptratus (Zetterstedt) (Ceratocombidae): 49; 50; 96.

Cryptostemma alienum Herrich-Schaeffer (Dipsocoridae): 36; 48; 50; 66; 67; 71; 97; 105.

Pachycoleus waltli Fieber (Dipsocoridae): 69.

Chartoscirta cincta (Herrich-Schaeffer) (Saldidae): 5; 31; 35; 42; 47; 48; 50; 71; 77; 83; 84; 86; 96; 106; 111; H40.

Chartoscirta cocksii (Curtis) (Saldidae): 6; 19; 35; 42; 43; 47; 48; 50; 52; 67; 69.

Chartoscirta elegantula (Fallén) (Saldidae): 11; 26; 42; 48; 49.

Halosalda lateralis (Fallén) (Saldidae): 5; 49; 69; 96.

Macrosaldula scotica (Curtis) (Saldidae): 35; 36; 43; 47; 48; 75; 76; 107; 109.

Micracanthia marginalis (Fallén) (Saldidae): 50.

Salda littoralis (Linnaeus) (Saldidae): 5; 33; 42; 43; 97; 108. Salda morio Zetterstedt (Saldidae): 41; 42; 43; 47; 48; 50; 69; 107; 108. Salda muelleri (Gmelin) (Saldidae): 35; 49; 50; 52; 69; 102. Saldula arenicola (Scholtz) (Saldidae): 16. Saldula c-album (Fieber) (Saldidae): 22: 48: 69: 73: 77: 104: 105: 108. Saldula fucicola (J. Sahlberg) (Saldidae): 36; 68; 69. Saldula opacula (Zetterstedt) (Saldidae): 15; 41; 44; 45; 46; 59; 62; 108. Saldula orthochila (Fieber) (Saldidae): 47; 84; 89; 108; 111. Saldula pallipes (Fabricius) (Saldidae): 6; 7; 15; 25; 31; 39; 52; 57; 59; 68. Saldula palustris (Douglas) (Saldidae): 15; 25; 34; 41; 50; 52; 59; 69; 73; 95; 96; 108. Saldula pilosella (Thomson) (Saldidae): 6: 27. Saldula saltatoria (Linnaeus) (Saldidae): 6; 8; 35; 42; 50; 51; 67; 75; 77; 82; 83; 84; 108; 111. Teloleuca pellucens (Fabricius) (Saldidae): 69; 108. Mesovelia furcata Mulsant & Rey (Mesoveliidae): 37; 40; 83. Hebrus pusillus (Fallén) (Hebridae): 41. Hebrus ruficeps Thomson (Hebridae): 6; 14; 26; 33; 35; 40; 42; 50; 51; 54; 55; 57; 66. Hydrometra gracilenta Horváth (Hydrometridae): 33; 40; 60. Hydrometra stagnorum (Linnaeus) (Hydrometridae): 67; 68; 98. Microvelia pygmaea (Dufour) (Veliidae): 6; 23; 24; 26; 27; 37. Microvelia reticulata (Burmeister) (Veliidae): 4; 40; 51; 55; 60; 68; 87; 96; 99. Velia caprai Tamanini (Veliidae): 7. Velia saulii Tamanini (Veliidae): 3; 55; 93. Aquarius najas (De Geer) (Gerridae): 8; 34; 37; 40; 108; 109. Aquarius paludum (Fabricius) (Gerridae): 15; 19; 28; 40. Gerris argentatus Schummel (Gerridae): 4; 7; 24; 26; 37; 45. Gerris costae (Herrich-Schaeffer) (Gerridae): 87. Gerris gibbifer Schummel (Gerridae): 26; 28; 31; 36; 55; 57; 82. Gerris lacustris (Linnaeus) (Gerridae): 109; 110. Gerris lateralis Schummel (Gerridae): 14; 15; 20; 25; 26; 27; 36; 42; 43; 50; 51; 53; 54; 71; 109. Gerris odontogaster (Zetterstedt) (Gerridae): 3; 8; 40; 47; 55. Gerris thoracicus Schummel (Gerridae): 6; 8; 26; 40; 43. Limnoporus rufoscutellatus (Latreille) (Gerridae): 56. Nepa cinerea Linnaeus (Nepidae): 8; 68; 84; 108; H40. Ranatra linearis (Linnaeus) (Nepidae): 37; 39; 55. Ilyocoris cimicoides (Linnaeus) (Naucoridae): 8; 40; 43; 50; 51; 65; 69. Aphelocheirus aestivalis (Fabricius) (Aphelocheiridae): 34; 39; 86; 97; 107; 108; 109. Notonecta maculata Fabricius (Notonectidae): 5; 8; 36; 37; 45; 60; 74. Notonecta obliqua Thunberg (Notonectidae): 37; 56; 109; 111. Notonecta viridis Delcourt (Notonectidae): 37; 65. Plea minutissima Leach (Pleidae): 48. Arctocorisa carinata (C.R. Sahlberg) (Corixidae): 16; 92; 97. Arctocorisa germari (Fieber) (Corixidae): 6; 19; 55; 101. Callicorixa praeusta (Fieber) (Corixidae): 13; 37; 42; 44. Callicorixa wollastoni (Douglas & Scott) (Corixidae): 40; 52. Corixa affinis Leach (Corixidae): 5; 27; 34; 41; 51; 56. Corixa dentipes Thomson (Corixidae): 6; 8; 16; 35; 37; 41; 51; 60. Corixa panzeri Fieber (Corixidae): 7; 37; 45; 85; 89. Corixa punctata (Illiger) (Corixidae): 43. Cymatia bonsdorffii (C.R. Sahlberg) (Corixidae): 16; 25; 31; 37; 55; 86. Cymatia coleoptrata (Fabricius) (Corixidae): 37; 40; 62; 66. Hesperocorixa castanea (Thomson) (Corixidae): 15; 26; 37; 59. Hesperocorixa linnaei (Fieber) (Corixidae): 13; 37.

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Hesperocorixa moesta (Fieber) (Corixidae): 5; 7; 35; 40; 57; 61.

Micronecta poweri (Douglas & Scott) (Corixidae): 5; 24; 54; 56; 66; 67; 81.

Micronecta minutissima (Linnaeus) (Corixidae): 14; 15.

Micronecta scholtzi (Fieber) (Corixidae): 5; 7; 8; 28; 40.

Paracorixa concinna (Fieber) (Corixidae): 6; 7; 13; 34; 37; 55.

Sigara distincta (Fieber) (Corixidae): 5; 7.

Sigara falleni (Fieber) (Corixidae): 2; 33; 109.

Sigara fossarum (Leach) (Corixidae): 2; 5; 8; 50; 55; 90.

Sigara iactans Jansson (Corixidae): 57.

Sigara lateralis (Leach) (Corixidae): 7; 42; 43; 47; 109.

Sigara limitata (Fieber) (Corixidae): 6; 8; 27; 37; 44; 53; 60.

Sigara nigrolineata (Fieber) (Corixidae): 6; 97; 98; 99; 100; 103; 106; 107; 108; 109; 111.

Sigara scotti (Douglas & Scott) (Corixidae): 5; 35; 37; 39; 40; 44; 64.

Sigara selecta (Fieber) (Corixidae): 27; 41; 56.

Sigara semistriata (Fieber) (Corixidae): 5; 12; 26; 41; 62.

Sigara striata (Linnaeus) (Corixidae): 16; 55.

Sigara venusta (Douglas & Scott) (Corixidae): 4; 6; 40; 53; 107.

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# NEW VICE-COUNTY RECORDS OF HEMIPTERA-HETEROPTERA FROM THE BIODIVERSITY IRELAND WEBSITE

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The Irish equivalent to the NBN Atlas (http://www./nbnatlas.org/) is the Biodiversity Ireland website of the National Biodiversity Data Centre (http://www.biodiversityireland.ie/), and having brought the vice-county distribution into line with the former with the previous article in this journal, it remained to do likewise with the latter, to ensure that the vice-county distribution includes the records from all sources known to me.

The Biodiversity Ireland website has a 'live maps' feature allowing the records for chosen species to be plotted as grid squares onto a map of Ireland with vice-county boundaries shown. The plotted grid squares can be clicked with the mouse to display the record details. Using these facilities, the vice-county of each plotted record can be deduced, and if there is uncertainty, the facilities of the Botanical Society of Britain and Ireland website (https://database.bsbi.org/gridref.php) can be used to confirm the correct vice-county corresponding to the grid reference of the record.

By comparing the mapped records of the Biodiversity Ireland website with a draft copy of the vice-county atlas, species by species, between 22 April and 7 May 2018, new vice-county records were identified. These records were interpreted by taking into account the name changes and confusions over identity documented in Ryan (2012, 2013, 2014, 2015, 2016a, 2016b, 2018a, 2018b, 2018c & 2018d). A total of 1325 new vice-county records were found, which are listed below, with the vice-county codes following the species names.

Acanthosoma haemorrhoidale (Linnaeus) (Acanthosomatidae): H4; H7; H8; H13; H15; H18; H24; H26; H34; H35.

Elasmostethus interstinctus (Linnaeus) (Acanthosomatidae): H4; H7; H8; H10; H11; H13; H14; H18; H25; H32; H33; H40.

*Elasmucha grisea* (Linnaeus) (Acanthosomatidae): H4; H6; H7; H9; H13; H14; H15; H16; H17; H27; H33; H40.

Eurygaster testudinaria (Geoffroy) (Scutelleridae): H11; H13; H14; H15; H19; H24; H25; H26.

Dolycoris baccarum (Linnaeus) (Pentatomidae): H10; H13; H14; H17; H18; H21; H22; H24; H25; H30; H31; H37.

*Palomena prasina* (Linnaeus) (Pentatomidae): H14; H15; H18; H21; H22; H23; H24; H25; H27; H28; H31; H32.

*Pentatoma rufipes* (Linnaeus) (Pentatomidae): H12; H13; H15; H18; H22; H23; H24; H25; H32; H36; H40.

*Picromerus bidens* (Linnaeus) (Pentatomidae): H8; H13; H14; H17; H24; H27; H28; H31; H32; H34; H36; H37; H39; H40.

*Piezodorus lituratus* (Fabricius) (Pentatomidae): H4; H8; H9; H13; H15; H18; H23; H24; H27; H28; H32; H34; H40.

Rhacognathus punctatus (Linnaeus) (Pentatomidae): H3; H7; H13.

*Troilus luridus* (Fabricius) (Pentatomidae): H3; H4; H10; H11; H12; H13; H14; H19; H25; H27; H28; H33; H35; H37; H39; H40.

Zicrona caerulea (Linnaeus) (Pentatomidae): H6; H9; H33; H36; H37; H38; H39.

Coreus marginatus (Linnaeus) (Coreidae): H4; H7; H9; H13.

Chilacis typhae (Perris) (Lygaeidae): H4; H12; H13; H15; H33; H37; H38; H39.

Cymus claviculus (Fallén) (Lygaeidae): H9; H11; H13; H17; H26; H38.

Cymus glandicolor Hahn (Lygaeidae): H14; H18; H24; H26; H32; H33; H35; H36; H37; H40.

Drymus brunneus (R.F. Sahlberg) (Lygaeidae): H1; H23; H32; H33; H39.

Drymus pilicornis (Mulsant & Rey) (Lygaeidae): H15.

Drymus sylvaticus (Fabricius) (Lygaeidae): H9; H13; H30; H32; H35; H36; H40.

Gastrodes grossipes (De Geer) (Lygaeidae): H7; H13; H14; H23; H33; H37; H38.

Kleidocerys resedae (Panzer) (Lygaeidae): H3; H4; H7; H8; H16; H33; H37; H38; H39; H40.

Lamproplax picea (Flor) (Lygaeidae): H9; H25; H30; H32; H33; H38.

Megalonotus chiragra (Fabricius) (Lygaeidae): H12.

Nysius thymi (Wolff) (Lygaeidae): H9; H16; H21; H38; H40.

Pachybrachius fracticollis (Schilling) (Lygaeidae): H9; H10; H11; H12; H14; H15; H19; H23; H26; H27; H28; H29; H30; H32; H34; H35; H36; H37; H38; H39.

Scolopostethus affinis (Schilling) (Lygaeidae): H9; H38; H40.

Scolopostethus decoratus (Hahn) (Lygaeidae): H3; H9; H29; H33; H36; H39; H40.

Scolopostethus puberulus Horváth (Lygaeidae): H30; H32; H37; H38.

Scolopostethus thomsoni Reuter (Lygaeidae): H33; H36; H38; H40.

Stygnocoris fuligineus (Geoffroy) (Lygaeidae): H12; H40.

Stygnocoris rusticus (Fallén) (Lygaeidae): H26; H27; H40.

Stygnocoris sabulosus (Schilling) (Lygaeidae): H13; H24; H25; H31; H32; H33; H35; H36; H40.

Trapezonotus arenarius (Linnaeus) (Lygaeidae): H9; H38.

Berytinus minor (Herrich-Schaeffer) (Berytidae): H9; H20; H22; H37; H38.

Berytinus signoreti (Fieber) (Berytidae): H16.

Metatropis rufescens (Herrich-Schaeffer) (Berytidae): H1; H13; H20; H25; H37.

Parapiesma quadratum (Fieber) (Piesmatidae): H38; H39.

Acalypta brunnea (Germar) (Tingidae): H38; H39.

Acalypta parvula (Fallén) (Tingidae): H4; H5; H15.

Derephysia foliacea (Fallén) (Tingidae): H9.

Dictyla convergens (Herrich-Schaeffer) (Tingidae): H4; H36; H37; H38.

*Tingis cardui* (Linnaeus) (Tingidae): H4; H5; H6; H13; H19; H25; H26; H27; H31; H33; H38; H39; H40.

Empicoris vagabundus (Linnaeus) (Reduviidae): H33; H38.

Himacerus major (A. Costa) (Nabidae): H38.

Himacerus mirmicoides (O. Costa) (Nabidae): H4; H13; H22; H39.

Nabis ericetorum Scholtz (Nabidae): H14; H16; H33; H36; H37; H38; H40.

Nabis ferus (Linnaeus) (Nabidae): H38.

Nabis flavomarginatus Scholtz (Nabidae): H13; H33; H38.

Nabis limbatus Dahlbom (Nabidae): H10; H26; H32; H34; H35; H36; H38.

Nabis lineatus Dahlbom (Nabidae): H12; H15; H16; H36; H38.

Nabis rugosus (Linnaeus) (Nabidae): H13; H16; H33; H35; H38; H39; H40.

Acompocoris pygmaeus (Fallén) (Anthocoridae): H10; H37; H39.

Anthocoris confusus Reuter (Anthocoridae): H25; H31; H33; H36; H37; H38; H39.

Anthocoris limbatus Fieber (Anthocoridae): H36.

Anthocoris nemoralis (Fabricius) (Anthocoridae): H9; H16; H23; H24; H32; H33; H36; H38; H39.

Anthocoris nemorum (Linnaeus) (Anthocoridae): H13; H15; H17; H23; H24; H25; H26; H30; H32; H33; H36; H39.

Anthocoris simulans Reuter (Anthocoridae): H37; H38.

Lyctocoris campestris (Fabricius) (Anthocoridae): H33; H37.

Orius laevigatus (Fieber) (Anthocoridae): H6; H27.

Orius laticollis (Reuter) (Anthocoridae): H6; H25; H37.

Orius majusculus (Reuter) (Anthocoridae): H33; H34; H40.

Orius niger (Wolff) (Anthocoridae): H25.

Orius vicinus (Ribaut) (Anthocoridae): H2; H19; H37.

Temnostethus gracilis Horváth (Anthocoridae): H3; H25; H33; H36; H37.

Temnostethus pusillus (Herrich-Schaeffer) (Anthocoridae): H33.

Temnostethus tibialis Reuter (Anthocoridae): H3.

Xylocoris cursitans (Fallén) (Anthocoridae): H21.

Cimex lectularius Linnaeus (Cimicidae): H22; H28; H31.

Cimex pipistrelli Jenyns (Cimicidae): H40.

Loricula elegantula (Baerensprung) (Microphysidae): H25; H33; H37.

Loricula exilis (Fallén) (Microphysidae): H1; H33.

Loricula pselaphiformis Curtis (Microphysidae): H21; H33; H37; H39.

Adelphocoris lineolatus (Goeze) (Miridae): H10; H12; H15; H25; H26; H27; H33; H38.

Adelphocoris seticornis (Fabricius) (Miridae): H7; H9; H10; H19.

Apolygus lucorum (Meyer-Dür) (Miridae): H12; H27; H33; H37; H38.

Apolygus spinolae (Meyer-Dür) (Miridae): H3; H27; H33; H38.

Asciodema obsoleta (Fieber) (Miridae): H27; H33; H35; H37; H38; H39.

Blepharidopterus angulatus (Fallén) (Miridae): H4; H13; H16; H28; H33; H40.

Bryocoris pteridis (Fallén) (Miridae): H13; H29; H33; H38; H40.

Calocoris roseomaculatus (De Geer) (Miridae): H9; H18; H19.

Campyloneura virgula (Herrich-Schaeffer) (Miridae): H4; H8; H13; H14; H25; H33.

Capsus ater (Linnaeus) (Miridae): H4; H13; H14; H16; H23; H24; H25; H26; H33; H35; H36.

Charagochilus gyllenhalii (Fallén) (Miridae): H12; H13; H16; H17; H25; H38.

Chlamydatus pullus (Reuter) (Miridae): H9.

Closterotomus norwegicus (Gmelin) (Miridae): H13.

Compsidolon salicellum (Herrich-Schaeffer) (Miridae): H3; H12; H13; H19; H27; H37; H38; H39.

Conostethus griseus Douglas & Scott (Miridae): H38.

Cyllecoris histrionius (Linnaeus) (Miridae): H13; H25; H33; H37.

Cyrtorhinus caricis (Fallén) (Miridae): H9; H16; H25; H26; H29; H33; H36; H40.

Deraeocoris ruber (Linnaeus) (Miridae): H4; H6.

Dichrooscytus rufipennis (Fallén) (Miridae): H38.

Dicyphus constrictus (Boheman) (Miridae): H23.

Dicyphus epilobii Reuter (Miridae): H4; H13; H33; H36; H37; H39.

Dicyphus errans (Wolff) (Miridae): H6; H13; H17; H20; H25; H38.

Dicyphus pallicornis (Fieber) (Miridae): H13; H38.

Dicyphus stachydis J. Sahlberg (Miridae): H2; H11; H13; H14; H33; H37; H38; H39.

Fieberocapsus flaveolus (Reuter) (Miridae): H16.

Globiceps flavomaculatus (Fabricius) (Miridae): H9; H17; H33.

Globiceps fulvicollis Jakovlev (Miridae): H15.

Grypocoris stysi (Wagner) (Miridae): H3; H4; H5; H13; H16; H25; H33; H40.

Harpocera thoracica (Fallén) (Miridae): H1; H5; H13; H23; H25; H33; H39; H40.

Heterocordylus tibialis (Hahn) (Miridae): H3; H33; H37; H38; H39.

Heterotoma planicornis (Pallas) (Miridae): H2; H4; H19.

*Leptopterna dolabrata* (Linnaeus) (Miridae): H2; H3; H8; H9; H13; H16; H20; H21; H24; H33; H34; H35; H36; H37; H38; H39; H40.

Leptopterna ferrugata (Fallén) (Miridae): H9; H12; H13.

Liocoris tripustulatus (Fabricius) (Miridae): H3; H4; H16; H27; H31; H32; H33; H40.

Lygocoris pabulinus (Linnaeus) (Miridae): H16; H24; H25; H33; H36; H40.

Lygocoris rugicollis (Fallén) (Miridae): H15; H33; H36; H37; H38; H39.

Lygus maritimus Wagner (Miridae): H12.

Lygus rugulipennis Poppius (Miridae): H2; H5; H15; H22; H23; H26; H31; H35; H36; H37; H39.

Lygus wagneri Remane (Miridae): H17; H19; H21; H25; H27; H29; H33; H35; H36; H37; H38; H39.

Macrolophus rubi Woodroffe (Miridae): H13.

Macrotylus paykullii (Fallén) (Miridae): H38.

Malacocoris chlorizans (Panzer) (Miridae): H11; H25; H33; H38.

Mecomma ambulans (Fallén) (Miridae): H13; H33; H35; H36; H38.

Mecomma dispar (Boheman) (Miridae): H9; H16; H23; H35; H36.

Megacoelum beckeri (Fieber) (Miridae): H20.

Miris striatus (Linnaeus) (Miridae): H23; H25; H33; H39.

Monalocoris filicis (Linnaeus) (Miridae): H3; H13; H21; H25; H33; H37; H39; H40.

Neolygus contaminatus (Fallén) (Miridae): H3; H25; H27; H33.

Notostira erratica (Linnaeus) (Miridae): H2.

Orthocephalus coriaceus (Fabricius) (Miridae): H23.

Orthocephalus saltator (Hahn) (Miridae): H16.

Orthops campestris (Linnaeus) (Miridae): H4; H5; H6; H12; H28; H31; H32; H33; H36; H37; H38; H39; H40.

Orthotylus bilineatus (Fallén) (Miridae): H33; H37; H39.

Orthotylus ericetorum (Fallén) (Miridae): H3; H15; H25; H33; H37; H40.

Orthotylus flavinervis (Kirschbaum) (Miridae): H2; H5; H17; H38.

Orthotylus flavosparsus (C.R. Sahlberg) (Miridae): H9; H16.

Orthotylus marginalis Reuter (Miridae): H16; H33; H36; H37.

Orthotylus ochrotrichus Fieber (Miridae): H33; H39.

Orthotylus tenellus (Fallén) (Miridae): H25; H37.

Orthotylus virescens (Douglas & Scott) (Miridae): H2; H3; H34; H37; H38; H39.

Pantilius tunicatus (Fabricius) (Miridae): H3; H4; H8; H31; H37; H39.

Phylus coryli (Linnaeus) (Miridae): H13; H29.

Phylus melanocephalus (Linnaeus) (Miridae): H13; H33; H37; H38; H40.

Phytocoris dimidiatus Kirschbaum (Miridae): H39.

Phytocoris longipennis Flor (Miridae): H3; H9; H13; H16; H27; H31; H33.

Phytocoris populi (Linnaeus) (Miridae): H33; H37.

Phytocoris reuteri Saunders (Miridae): H25; H38.

Phytocoris tiliae (Fabricius) (Miridae): H8; H38; H39.

Phytocoris ulmi (Linnaeus) (Miridae): H8.

Phytocoris varipes Boheman (Miridae): H13; H16; H17; H39.

Pinalitus cervinus (Herrich-Schaeffer) (Miridae): H4; H13; H25; H29; H32; H33; H38; H39; H40.

Pinalitus rubricatus (Fallén) (Miridae): H38.

Pithanus maerkelii (Herrich-Schaeffer) (Miridae): H13; H24; H32; H33; H35; H36; H38; H39; H40.

Plagiognathus arbustorum (Fabricius) (Miridae): H13; H16; H25; H33; H36.

Plagiognathus chrysanthemi (Wolff) (Miridae): H13; H16; H24; H25; H27; H33; H36.

Polymerus palustris (Reuter) (Miridae): H1; H4; H15; H17; H26; H32; H33; H34; H36; H37; H39.

Psallus ambiguus (Fallén) (Miridae): H23; H25; H37.

Psallus assimilis Stichel (Miridae): H39.

Psallus confusus Rieger (Miridae): H37.

Psallus falleni Reuter (Miridae): H38.

Psallus flavellus Stichel (Miridae): H25.

Psallus haematodes (Gmelin) (Miridae): H13; H25; H33; H36; H38.

Psallus lepidus Fieber (Miridae): H9; H16; H25; H34; H37; H39.

Psallus perrisi (Mulsant & Rey) (Miridae): H33; H37; H39.

Psallus quercus (Kirschbaum) (Miridae): H25; H37.

Psallus salicis (Kirschbaum) (Miridae): H16.

Psallus variabilis (Fallén) (Miridae): H25.

Psallus varians (Herrich-Schaeffer) (Miridae): H25; H33; H38; H39.

Psallus wagneri Ossiannilsson (Miridae): H25.

Rhabdomiris striatellus (Fabricius) (Miridae): H13; H19; H25; H33; H36; H38.

Stenodema calcarata (Fallén) (Miridae): H4; H17; H25; H26; H29; H30; H32; H33; H34; H36; H38; H39.

Stenodema holsata (Fabricius) (Miridae): H13; H14; H25; H32; H35; H36; H38; H40.

Stenodema laevigata (Linnaeus) (Miridae): H11; H13; H14; H24; H25; H26; H35; H36; H39; H40.

Stenotus binotatus (Fabricius) (Miridae): H13; H16; H33; H36; H38.

Teratocoris saundersi Douglas & Scott (Miridae): H26; H32; H33; H35; H36; H37; H38; H40.

Teratocoris viridis Douglas & Scott (Miridae): H35.

Trigonotylus ruficornis (Geoffroy) (Miridae): H6; H9; H13; H16; H27; H33; H35; H37; H38.

Tytthus pubescens (Knight) (Miridae): H33.

Tytthus pygmaeus (Zetterstedt) (Miridae): H3; H5; H16; H22; H27; H36; H39.

Cryptostemma alienum Herrich-Schaeffer (Dipsocoridae): H33; H35.

*Chartoscirta cincta* (Herrich-Schaeffer) (Saldidae): H3; H6; H8; H10; H15; H17; H18; H23; H24; H26; H28; H30; H32; H33; H35; H36; H38.

Chartoscirta elegantula (Fallén) (Saldidae): H16; H25; H27; H33; H40.

Macrosaldula scotica (Curtis) (Saldidae): H16; H17; H29; H33; H34; H35; H39.

Salda littoralis (Linnaeus) (Saldidae): H26; H33; H35; H36; H40.

Salda morio Zetterstedt (Saldidae): H15; H32; H36.

Salda muelleri (Gmelin) (Saldidae): H16; H23; H33; H36; H37; H38; H39.

Saldula opacula (Zetterstedt) (Saldidae): H1; H9; H12; H15; H16; H17; H25; H32; H33; H36; H38; H39; H40.

Saldula orthochila (Fieber) (Saldidae): H6; H9; H15; H38.

Saldula palustris (Douglas) (Saldidae): H9; H12; H16; H21; H27; H28; H35; H38.

Saldula pilosella (Thomson) (Saldidae): H12.

Saldula saltatoria (Linnaeus) (Saldidae): H8; H15; H25; H26; H30; H31; H32; H33; H36; H40.

Aepophilus bonnairei Signoret (Aepophilidae): H9; H16; H28.

Hebrus pusillus (Fallén) (Hebridae): H6.

Hebrus ruficeps Thomson (Hebridae): H1; H3; H11; H15; H18; H19; H23; H25; H27; H29; H34; H35; H36

*Hydrometra stagnorum* (Linnaeus) (Hydrometridae): H4; H10; H13; H16; H17; H18; H22; H23; H24; H25; H26; H28; H29; H30; H32; H34.

Microvelia reticulata (Burmeister) (Veliidae): H5; H6; H8; H10; H16; H25; H26; H29; H30; H32; H34; H35.

Velia caprai Tamanini (Veliidae): H4; H6; H10; H16; H18; H19; H20; H21; H25; H26; H27; H29; H30; H32; H34.

Velia saulii Tamanini (Veliidae): H16; H17; H25; H26; H27; H28; H30; H33; H36; H39; H40.

Aquarius najas (De Geer) (Gerridae): H3; H7; H10; H11; H13; H30; H33.

*Gerris argentatus* Schummel (Gerridae): H2; H3; H6; H12; H15; H18; H19; H23; H24; H25; H26; H27; H28; H29; H30; H32; H34; H35; H39; H40.

Gerris costae (Herrich-Schaeffer) (Gerridae): H6; H18.

Gerris lacustris (Linnaeus) (Gerridae): H6; H10; H12; H14; H15; H16; H18; H22; H23; H24; H25; H26; H30; H32.

Gerris lateralis Schummel (Gerridae): H2; H9; H11; H18; H19; H26; H27; H32; H34; H39.

Gerris odontogaster (Zetterstedt) (Gerridae): H5; H10; H12; H16; H18; H22; H23; H25; H26; H29; H30; H32; H34; H35.

Gerris thoracicus Schummel (Gerridae): H15; H16; H18; H24; H25; H26; H28; H30; H31; H36.

Limnoporus rufoscutellatus (Latreille) (Gerridae): H1; H5; H15; H16; H23; H34; H38.

Nepa cinerea Linnaeus (Nepidae): H6; H10; H12; H13; H15; H18; H19; H22; H23; H24; H25; H26; H32.

Aphelocheirus aestivalis (Fabricius) (Aphelocheiridae): H1; H2; H3; H4; H6; H8; H10; H11; H12; H13; H15; H16; H17; H18; H23; H24; H25; H27; H28; H29; H30; H34; H35; H36.

Notonecta glauca Linnaeus (Notonectidae): H6; H10; H18; H22; H24; H25; H26; H32.

Notonecta obliqua Thunberg (Notonectidae): H28; H29; H37.

Notonecta viridis Delcourt (Notonectidae): H5; H6; H9; H39.

Plea minutissima Leach (Pleidae): H22; H32.

Arctocorisa germari (Fieber) (Corixidae): H4; H11; H18; H22; H24; H25; H29.

Callicorixa praeusta (Fieber) (Corixidae): H4; H5; H8; H11; H12; H18; H22; H24; H26; H27; H29; H30; H32.

Callicorixa wollastoni (Douglas & Scott) (Corixidae): H6; H9; H30; H32.

Corixa affinis Leach (Corixidae): H12; H16; H28; H38.

Corixa dentipes Thomson (Corixidae): H1; H9; H12; H15; H22; H25; H26; H28; H29; H30; H32; H34.

Corixa panzeri Fieber (Corixidae): H8; H18; H22; H27; H32; H33; H34; H39.

Corixa punctata (Illiger) (Corixidae): H6; H8; H11; H12; H22; H26; H28; H29; H30; H32.

Cymatia bonsdorffii (C.R. Sahlberg) (Corixidae): H14; H18; H29; H30; H32; H40.

Hesperocorixa castanea (Thomson) (Corixidae): H6; H11; H18; H25; H26; H28; H29; H32.

Hesperocorixa linnaei (Fieber) (Corixidae): H6; H10; H11; H15; H18; H23; H25; H27; H29; H30; H32.

Hesperocorixa moesta (Fieber) (Corixidae): H11; H39.

Hesperocorixa sahlbergi (Fieber) (Corixidae): H6; H11; H18; H25; H26; H28; H29; H32.

Micronecta poweri (Douglas & Scott) (Corixidae): H9; H20; H23; H25; H26; H27; H30.

Paracorixa concinna (Fieber) (Corixidae): H4; H5; H12; H20; H22; H29; H30; H32.

Sigara distincta (Fieber) (Corixidae): H6; H8; H14; H18; H20; H24; H25; H32.

Sigara dorsalis (Leach) (Corixidae): H4; H6; H18; H22; H24; H25; H26; H29; H32.

Sigara falleni (Fieber) (Corixidae): H1; H4; H18; H20; H24; H25; H26; H29; H32.

Sigara fallenoidea (Hungerford) (Corixidae): H16; H17; H23; H24; H29; H30; H35.

Sigara fossarum (Leach) (Corixidae): H1; H12; H25; H29; H32; H35.

Sigara lateralis (Leach) (Corixidae): H3; H11; H12; H18; H20; H26; H30; H37.

Sigara limitata (Fieber) (Corixidae): H26.

Sigara nigrolineata (Fieber) (Corixidae): H22; H24; H28; H29; H31.

Sigara scotti (Douglas & Scott) (Corixidae): H18; H19; H21; H25; H26; H28; H29; H40.

Sigara selecta (Fieber) (Corixidae): H9.

Sigara semistriata (Fieber) (Corixidae): H18; H28; H29; H38.

Sigara stagnalis (Leach) (Corixidae): H9; H16; H20; H27; H28.

Sigara venusta (Douglas & Scott) (Corixidae): H27.

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# CANTHOPHORUS IMPRESSUS FOUND IN VC20 AND OTHER UPDATES TO THE ATLAS OF THE HEMIPTERA-HETEROPTERA OF THE BRITISH ISLES

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#### **Preliminaries**

As the calendar hit the first of June, the month of the deadline for this latest update, I sat down in front of my laptop to write about two more Mirid species, a pair of Anthocorids, and a Coreid that needed to be added to the *Atlas of the Hemiptera-Heteroptera of the British Isles* (Ryan, 2014a; 2014b). Three of the records were overlooked older records while the other couple were more recently determined observations (via iRecord). As I finished the final sentence, about *Closterotomus trivialis* (A. Costa) – for which a 26 June 2016 record from Maple Lodge Nature Reserve (TQ036923) was determined earlier this year as the first recorded sighting in VC20 – I headed out into my small back garden for some sunlight. And there, sitting on a Raspberry leaf was a female *Closterotomus trivialis*. The second record for the county. Since then I have recorded males and females of this species everywhere I've been in Herts, on plants as diverse as White Bryony and Common Gorse. "At least I have something more to add to the report," I thought. The next day, things would get a lot more interesting still.

# Canthophorus impressus found in VC20

I headed to Therfield Heath for a Herts Invertebrate Project field meeting on 2 June 2018. We had visited the site almost exactly two years to the day earlier, and that time, with William Bishop, I had spent around two hours on the chalk downland of Church Hill grubbing under Bastard Toadflax in a speculative search for *Canthophorus impressus* (Horvath). We found no sign of the insect, but we were not surprised as it had never been found in Herts and it was thought to have been completely lost from the East of England. We were recounting this at the start of our return visit as we headed in a fairly direct line from the car park to Church Hill, but this time we had Cynthia Combe, a Conservator of Therfield Heath, in our company. She mentioned that there was a small amount of Bastard Toadflax away from Church Hill (the nature reserve) in the rough of the golf course that constitutes much of the SSSI.

We asked her to show us this patch and, with no thought at all that we might find *Canthophorus impressus*, we started to look under the leaves. Almost instantly, Ian Carle found one half-buried adult in the soil (TL3339), and I determined the record in the field. With a little bit more searching, I found a second adult.

So what was different about the Bastard Toadflax here versus that on nearby Church Hill, where it is much more abundant, but where the bug has still not been found? It is possible that the soil is less friable on Church Hill, but I have no hard data to support that. Another potential factor is that the ground immediately surrounding the Bastard Toadflax where we found the bug was very sparsely vegetated.

# Megalonotus antennatus also found in VC20

A few hours after finding *Canthophorus impressus*, following some time spent on Church Hill, we drifted just off Therfield Heath onto a set-aside area that is part of Greys Farm. Ian Carle's purple patch continued, as he swept a ground-bug off meadow herbage that I later determined as *Megalonotus antennatus* (Schilling). This was another first county record.

# Second VC20 record of *Chlamydatus evanescens*

I was still not quite ready to sign off on this report, and so on 6 June I headed to my local graveyard, Hatfield Road Cemetery, inspired by an article by Ryan (2015). Following the advice to examine stonecrop on old gravestones, I quickly found several *Chlamydatus evanescens* (Boheman), adding a second record for VC20 (TL162071).

# Other updates to the Atlas

To complete this article, I must detail the other species mentioned at the start of this piece. In addition to *Closterotomus trivialis*, the other Mirid to add to the Atlas for VC20 is *Trigonotylus caelestialium* (Kirkaldy), for which previously overlooked records made by John Widgery exist from between 1998 and 2005 from Patmore Heath and Therfield Heath. The Coreid to add is *Ceraleptus lividus* Stein, again based on an overlooked John Widgery record, this time from Long Deans Nature Reserve in 2006, while one of the Anthocorids, *Temnostethus pusillus* (Herrich-Schäffer), is likewise from a John Widgery record, from Therfield Heath between 2000 and 2004. Lastly, a record of *Anthocoris butleri* (Le Quesne) dating back to 10 April 2013 was posted on iRecord by Chris Shortall from Rothamsted (TL134134), and this was determined by Tristan Bantock.

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